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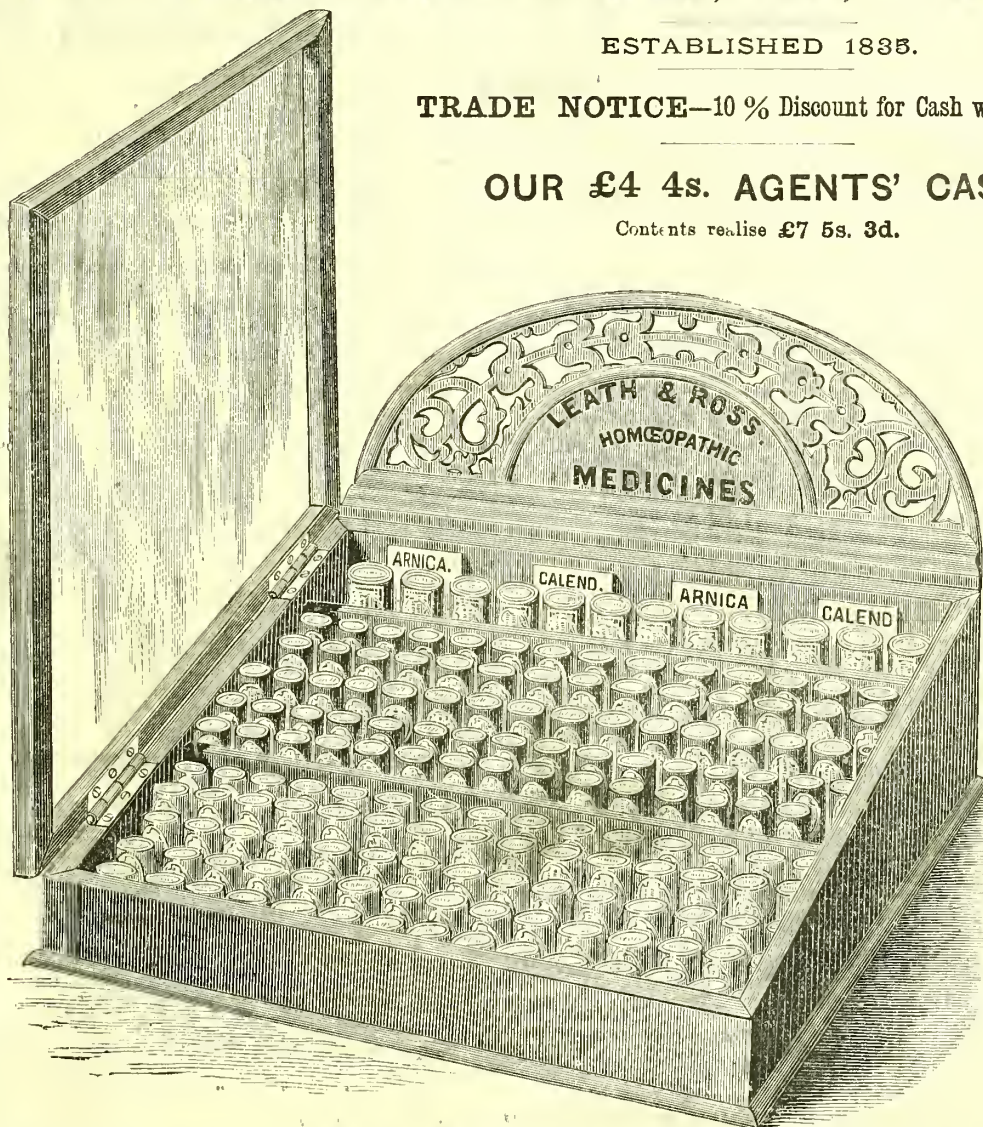
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Ninepenny „ ...	4/6 „	4/1 „	Ninepenny „ ...	4/6 „	4/1 „
Shilling „ ...	6/0 „	5/5 „	Shilling „ ...	6/0 „	5/5 „
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Ninepenny „ ...	4/6 „	4/1 „	Ninepenny „	4/6 „	4/1 „
Shilling „ ...	6/0 „	5/5 „	Shilling „	6/0 „	5/5 „

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Is a valuable remedy in cases of **SLEEPLESSNESS** and **NERVOUS DEPRESSION**,
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Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.

FORTY-FIRST SESSION, 1882-83, extending from October 1 to July 31.

*Application for admission to the School, for Prospectuses, or for further information, may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.***THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,**

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Teacher of Pharmacy, Botany, Materia Medica, &c., Mr. J. WOODLAND, F.C.S., F.L.S., M.P.S., &c.

THE WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY.**The next Session will commence on Monday, September 3rd.***Students desiring to enter the School at the commencement of the Twelfth Session, on 3rd September, should send in their names without delay, as the few remaining benches in the Laboratory are being rapidly filled up. The regular course is three months, but those already possessing knowledge may enter at any time when there is room.***FEES.—PRELIMINARY.**

To the October Examination..	£2 2s.
Until passed	£5 5s.

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To the October Examination..	£5 5s.
To the December	£8 8s.
Six Months' Course	£10 10s.

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Director: Dr. JOHN MUTER, M.A., F.I.C., F.C.S., &c.

FIFTEENTH SESSION, 1883-84.

Entries now being made for the 10th September. Fees, Syllabus, &c., apply to W. BAXTER, Secretary.

EDINBURGH SCHOOL OF PHARMACY AND CHEMISTRY,

MARSHALL STREET, NICOLSON SQUARE.

The Sessions open at this School in January, May, and October. ONE Session's Attendance has hitherto been found sufficient to secure success. For particulars apply to—

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For further information apply to the Hospital. By order,

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Mr. W. S. TURNER, Pharm. Chemist, M.P.S.

The next Session will commence on Monday, August 13th, and will include the following Classes:—

I.—The usual Day Classes for October and December Minor:

Fee to October	£5 5 0
Fee to December	10 10 0

II.—The usual Evening Classes for December Minor:

Fee	£4 0 0
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III.—An Afternoon Class—meeting twice a week—for December Minor:

Fee	£4 0 0
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IV.—An Afternoon Class—meeting thrice a week—for January Preliminary:

Fee	£4 0 0
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In the year ending this month 25 Students from the Manchester College of Pharmacy have been examined; 15 passed, a proportion that will bear comparison with that obtained by any other school.

The names of the four Students who passed the Minor this month are—

Mr. J. ARTHUR, Chesterfield;
Mr. W. CROMPTON, Bury;
Mr. H. COLLINS, Ashton; and
Mr. T. W. KAY, Droylesden.

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For the use of Medical and Pharmaceutical Students; with an Essay on the Reading of Latin Prescriptions. By JOSEPH INCE, F.C.S., F.L.S., A.K.C. Lond., formerly Examiner and Member of Council of the Pharmaceutical Society of Great Britain.

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HOMŒOPATHIC PHARMACOPŒIA.

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The first edition of the above work was sold in less than twelve months. Great care has been taken to insert every information necessary for the preparation of Homœopathic Medicines, and all the official processes of the *British Homœopathic Pharmacopœia* of 1882 (third edition) are given, besides directions for making medicines on the American plan. The chemist wishing for information on the subject should buy this work, for he will be able to become his own manufacturer, and in any case will derive much information concerning new remedies, both British and American, of which a host are added.

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ON Loss of Weight, Blood-Spitting, and LUNG DISEASE. To which is now added Part VI., on the FUNCTIONS and DISORDERS of the LIVER, and their Management in accordance with the Results of Modern Discovery. Second Edition. Coloured Plates.

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A descriptive Catalogue of Dr. Dobell's Works, with Prices, Lists of Illustrations, Opinions of the Press, and the Table of Contents of each volume, on application at LEWIS'S LIBRARY, 136 Gower St., London, W.C.

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Second Edition, Revised and Enlarged, by C. E. ARMAND SEMPLE, M.B., Cantab., M.R.C.P. Lond., &c., Physician to the North Eastern Hospital for Children, &c.

"On the whole this is a good book. There is the ring of common sense in the remarks about the employment of a wet nurse, about the proper food for a nursing mother, about the tonic effect of a bath, about the perambulator *versus* the nurse's arms, and on many other subjects concerning which the critic might say, 'surely this is obvious,' but which experience teaches us are exactly the things needed to be insisted upon with the rich as well as the poor. The chapter on the subject of Cow's Milk is excellent. Dr. Keating has well stated the difficulties and dangers which beset the subject. On the question of condensed milk, as on others, he speaks evidently from the result of personal knowledge."—*Lancet*.

"Grave objections exist against the mothers' books in ordinary circulation, and hence we hail with genuine pleasure the appearance of a volume which, in a small compass, includes all that a woman need know concerning the management, treatment, and feeding of infants. But Dr. Keating has accomplished even more than this, for many a young practitioner will find in this unpretending little handbook a fund of information of the most valuable kind to assist him in successfully passing that trying ordeal of experience—a mother's questions regarding her child."—*Medical News*.

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A MANUAL containing sections on Compounding, Dispensing, Prescription writing and reading, Latin abbreviations, Lithographed Recipes (parsed and translated), strengths, solubilities, doses, combinations of all the P.B. Drugs, and a notice of the more important new ones, with Formulae, &c. By W. WHITLA, M.D., Consulting Physician to the Ulster Hospital for Women.

"Should be in the hands of every Chemist."

LONDON: H. RENSHAW, 356 STRAND. 8vo. 10s. 6d.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, PADDINGTON, W.

The Winter Session will open on Monday, October 1. with an Introductory Address by Dr. HANDFIELD JONES, F.R.S., Senior Physician to the Hospital. The Chair at the Annual Dinner in the Evening, at Limmer's Hotel, George Street, Hanover Square, will be taken by SPENCER SMITH, Esq., F.R.C.S., Consulting Surgeon to the Hospital.

Four open Scholarships in Natural Science, each of the value of £50, will be offered for competition on October 2 and following days.

The School buildings, to which large additions have been made, especially as regards the laboratories for the teaching of Physiology and Chemistry, will be ready for occupation on October 1; and it is intended to open on the same day a "Students' Club and Refreshment Room," for the convenience of the pupils of the Hospital, in the building itself.

In addition to the open Entrance Scholarships, Class Prizes, and usual Appointments, Scholarships will be offered for competition at the end of each year, open to all pupils of the Hospital. These Scholarships are of the value of £20, £25, and £30, for the first, second, and third years respectively.

Further information may be obtained of the Dean, or of the Medical Superintendent at the Hospital.

A. B. SHEPHERD, M.D.,

Dean of the School.

29th June, 1883.

THE

NEW VETERINARY COLLEGE, LEITH WALK, EDINBURGH.

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SESSIONS 1882-84.

THE

WINTER SESSION

WILL COMMENCE ON

WEDNESDAY, OCTOBER 24, 1883,

WHEN

THE INTRODUCTORY ADDRESS

Will be Delivered in the Theatre of the New College, at Two o'clock P.M., by the Principal, when a Deputation from the Highland and Agricultural Society of Scotland will be present.

The Most Noble the Marquis of Lotbian, K.T., in the Chair.

The New College covers an area of over 2,000 square yards, is quadrilateral in shape, and consists of a Lecture Hall and a Lecture Room, large Dissecting-Room, Chemical Laboratory, Physiological and Pathological Laboratory, Museum, Bone Room, Reading-Room, Pharmacy, Post-mortem Room, and Offices. The Infirmary will consist of Seventeen Loose Boxes, a Bath Box, Hot-air Boxes, large Byre, Dog Kennels, and Forge, surrounding an Open Court, which will be causewayed down the centre for trotting horses, &c. On one side of the Court will be a Covered Yard for casting horses, exercising, &c.

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Dr. STEVENSON MACADAM, F.R.S.E.

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Diseases of the Ear—Dr. Edw. Woakes.

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As Emeritus Professor of Surgery, Mr. HUTCHINSON will give in the Winter and Summer Sessions short Courses of Lectures in Clinical Surgery, consisting of Six Lectures each. The Special Subjects and the dates will be announced in due course.

The SESSION 1883-84 will commence on Monday, October 1st, 1883, when the Prizes for the past Session will be distributed, after which there will be a Conversazione, to which all past and present Students are invited.

Fee for Lectures and Hospital Practice, 90 guineas in one sum, or 100 guineas by three instalments.

The Hospital contains nearly 800 beds. Number of In-patients during 1882 was 7,793; Out-patients, 62,437.

THE RESIDENT AND OTHER HOSPITAL APPOINTMENTS are free to full Students. The Resident Appointments consist of five House-Physicians, five House-Surgeons, and one Accoucheurship. Two Dressers and two Maternity Assistants also reside in the Hospital.

TWO ENTRANCE SCIENCE SCHOLARSHIPS, value £60 and £40, and TWO BUXTON SCHOLARSHIPS, value £30 and £20, will be offered for competition at the end of September to new Students.

The Letheby Prize, value £30, for proficiency in Chemistry.

A Scholarship, value £20, in Human Anatomy and Physiology, to first year's Students.

A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, to second year's Students.

A Scholarship, value £20, in Clinical Medicine.

A Scholarship, value £20, in Clinical Surgery.

A Scholarship, value £20, in Clinical Obstetrics.

A Duckworth Nelson Prize, value £10 (biennial), in Clinical Medicine and Surgery.

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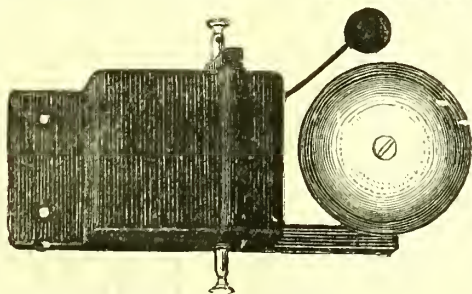
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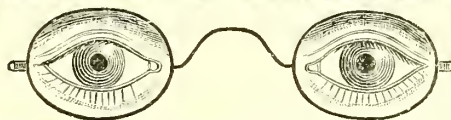
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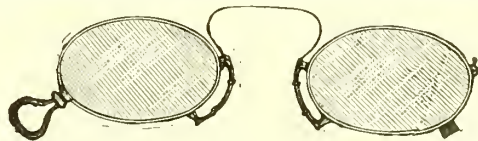
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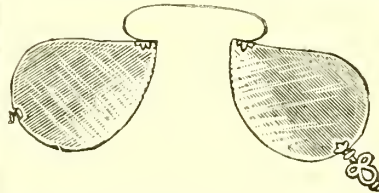
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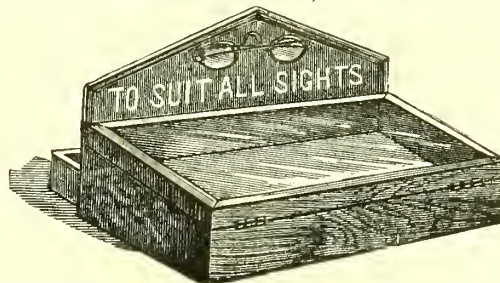
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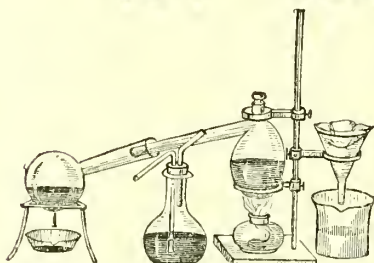
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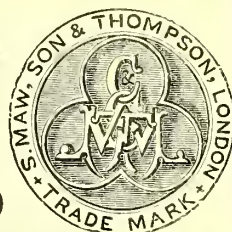
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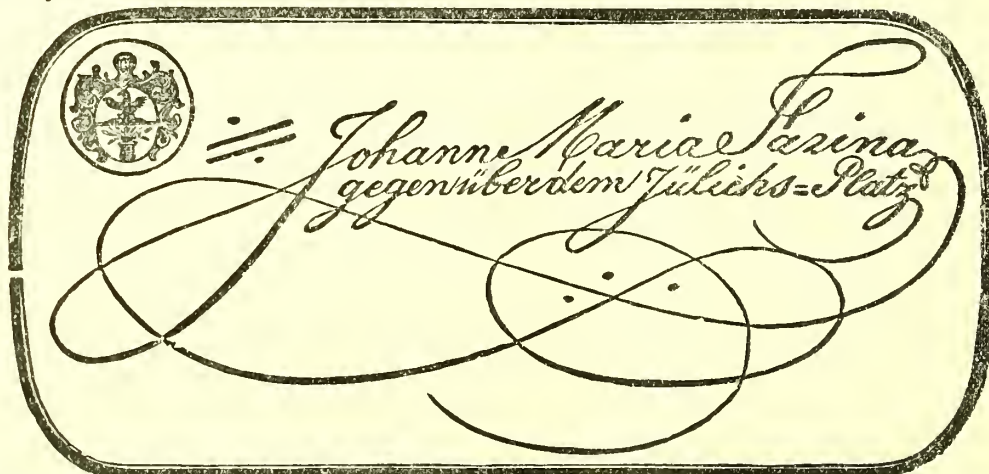
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	4 "
" 6. ditto (large)	...	...	...	...	...	2 "

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICHS PLACE.

Notice to the Trade.

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,
IS KNOWN THROUGHOUT THE WORLD AS

No. 4,

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In 4 oz. Bottles.

In 6 oz. Bottles.

In 8 oz. Bottles.

In reputed $\frac{1}{2}$ -Pint, Wickered.

In reputed Pint, Wickered.

In reputed Quart, Wickered.

In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,
COLOGNE-ON-THE-RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853;
LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875;
PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURTENAY & CO.

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.

Paton & Charles

(ESTABLISHED 1785),

Tunnel Soap Works,

LONDON, E.



Paton & Charles

(ESTABLISHED 1785),

Tunnel Soap Works,

LONDON, E.



A HIGH-CLASS PERFUMED HYGIENIC TOILET SOAP.

Strongly recommended by the Medical Profession for its beneficial effects on the Skin, and for Preventing the Transmission of Cutaneous Diseases.

DR. HASSALL'S REPORT ON THE HYGIENIC SOAP OF MESSRS. PATON & CHARLES.

"We have very carefully analysed samples of the Hygienic Soap manufactured by Messrs. PATON & CHARLES, and have also subjected them to certain practical tests with a view to determine their antiseptic action; we find, that when as little as

"one part of the soap is added to 10,000 parts of putrescible organic liquids, an efficient antiseptic action is exercised,

"no decomposition ensuing for a period of several weeks. The agent used is a very energetic antiseptic. This soap

"is admirably adapted for general as well as for medical use, being very well made, non-irritating, and of an

"agreeable aromatic odour. It will not only disinfect the skin in cases of infectious diseases, but the suds

"will tend to purify any sewer or house-drain into which they are thrown. This soap is a valuable

"adjunct to the sanitary appliances of every household.

"ARTHUR H. HASSALL, M.D.

"OTTO HEHNER, P.C.S."

Makers of the celebrated "Hard Water Soap" (Regd.), Double Primrose (Regd.), Extra Mottled, and all kinds of Household and Toilet Soaps.

To be obtained from the following Wholesale Chemists:—Messrs. Baile & Co., 4 Jewry Street, E.C.; Messrs. Barclay & Co., Farringdon Street, E.C.; Messrs. Butler & Crispe, 4 Cheapside, E.C.; Messrs. Davy Yates & Co., 64 Park Street, Southwark; Messrs. Edwards & Sons, 157 Queen Victoria Street, E.C.; Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, E.C.; Messrs. Herrings & Co., 49 Aldersgate Street, E.C.; Messrs. Hodgkinson & Co., 144 Aldersgate Street, E.C.; Messrs. Hodgkinson, Preston & King, 88 Leadenhall Street; Messrs. Lynch & Co., Aldersgate Street, E.C.; Messrs. Maw & Co., Aldersgate Street, E.C.; Messrs. Newbery & Son, 1 King Edward Street, E.C.; Messrs. Sanger & Co., 252 Oxford Street, W.; Messrs. Sutton & Co., Bow Churchyard, E.C.; Thompson, Millard & Co., Lim, Great Eastern Street, E.C.

F. A. SARG'S SON & CO.'S
CHEMICALLY PURE GLYCERINES
 AND
TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

In registered Packets of three Tablets, and in oval Tablets in paper. Warranted to contain 33% of the purest Glycerine.

Liquid Glycerine Soap,

Best preventive against chapped hands, and unrivalled for imparting softness to them, and rendering them clean and white. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

Sarg's Double Distilled Glycerine, Chemically Pure,

In $\frac{1}{2}$ lb. and 1 lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandruff, and the roughness of the scalp they are so commonly subject to.

Sarg's New Carbolic Glycerine Soap,

In Boxes of three Tablets, is highly recommended as a most effective disinfection.

GLYCERINE, CHEMICALLY PURE.

SARG'S DISTILLED CHEMICALLY PURE GLYCERINE, 29° Beaumé, in Cases of Four 56-lb. Tins each.
SARG'S DOUBLE DISTILLED GLYCERINE, Chem. pure, 30° Beaumé, in Cases of Four 56-lb. Tins each;
 Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 $\frac{1}{2}$ -lb. Bottles, with Registered Label.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS.

SOLE WHOLESALE AGENTS FOR THE UNITED KINGDOM AND THE COLONIES,

SCHMEDES, ERBSLOH & CO.,

36 & 37 Monkwell Street, LONDON, E.C.; 14 Market Buildings, Flinders Lane, MELBOURNE;
 34 Pitt Street, SYDNEY.

RIGAUD & DUSART,

Manufacturers of Pharmaceutical Preparations,

8 Rue Vivienne—PARIS—Rue Vivienne 8.

SOLE PROPRIETORS OF

Pelletier's Capsules of Sulphate of Quinine,

Prepared by Messrs. ARMET DE LISLE & C^{IE}, successors of PELLETIER, DELONDRE & LEVAILLANT, with their Renowned "QUININE DES TROIS CACHETS."

These Capsules are very thin, transparent, and dissolve easily in the stomach; they contain each 10 centigrams (over 1½ grain English) of the pure Sulphate of Quinine in silky crystals, and are capable of indefinite preservation.

SOLD IN BOTTLES OF TEN OR TWENTY CAPSULES.

DUSART'S Syrup of Lactophosphate of Lime.
 „ Syrup of Lactophosphate of Lime and Iron.
 „ Wine of Lactophosphate of Lime.
 „ Ferruginous Wine.

GRIMAULT'S CIGARETTES of Cannabis Indica.
 „ Syrup of Hypophosphite of Lime.
 „ GUARANA Powders, against headache.
 „ MATICO Capsules and Injections.

MIDY'S PEARLS OF PURE SANDAL WOOD OIL.

CHAPOTEAUT'S Elixir of Beef-Peptide.

„ Liquid Beef-Peptide, or Conserve.
 „ Pearls of Pure Pepsine.


London Agents—WILCOX & CO.; NEWBERRY & SONS; BARCLAY & SONS.

CHISWICK SOAP COMPANY, CHISWICK, LONDON, W.,

SOFT SOAP

MANUFACTURERS, WHOLESALE AND EXPORT.

"IMPERIAL" SOFT SOAP	}	Manufactured specially for Domestic use, and packed in 1, 2, 3, 3½, 4, and 7 lb. Tins.
"FINEST PALE"		Very pale Amber colour, odourless. Packed in barrels, firkins, half-firkins, and 14-lb. tins.
"BBB," "BB," "BL,"	}	The usual qualities, and kept in all packages to suit buyers.
CARBOLIC		Contains 10 % Calvert's No. 5 Acid. For Dogs and Cattle, making Sheep Dip, and general disinfecting purposes. Packed in 1, 2, 4, and 7 lb. tins; 14, 28, 56, and 112 lb. iron drums.
OLIVE	}	The B.P. "Sapo Mollis," made from finest Olive Oil and pure Potash, in tins firkins and jars.



TO HER MAJESTY'S ARMY CLOTHING DEPARTMENT.

ESTABLISHED A.D. 1815


GENUINE INDELIBLE

THE LEADING & STANDARD ARTICLE

PREPARED ONLY BY THE WIDOW OF THE LATE JOHN MURPHY

CHEMIST AT THE ORIGINAL ESTABLISHMENT

11, NILE STREET, EAST ROAD, HOXTON, N.



TRADE MARK.
Estab'd 1815.

NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

PREPARATIONS OF THE Chevalier Ruspini

I. RUSPINI'S STYPTIC

Stops all Bleeding and Internal Hæmorrhages.

Bottle, 4/6; Magnum, 10/6.

A Magnum contains as much as 3 Bottles.

II. RUSPINI'S ASTRINGENT TINCTURE,

FOR THE TEETH AND GUMS.

A great reduction has been made in the price of this article.

Bottle, 2/9; Magnum, 5/6.

III. RUSPINI'S DENTIFRICE.

Boxes, 1/6, 2/9, 4/6, and 10/6 each, according to size.

All the three Preparations are carefully compounded from the Original Recipes. To be genuine they must bear a Government Stamp, with the signature "Ruspini" thereon.

WHOLESALE AGENTS:

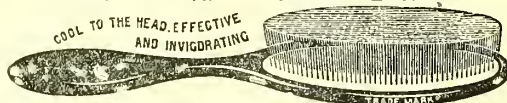
LONDON	...	Messrs. Barclay & Sons.	They may also be obtained of
		Messrs. F. Newbery & Son, and	
		Messrs. W. Edwards & Son.	
EDINBURGH	...	Messrs. Duncan, Flockhart & Co.	
GLASGOW	...	Glasgow Apothecaries' Co.	
DUBLIN	...	Messrs. Butler & Co., Butler's Hall.	
LIVERPOOL	...	Messrs. Clay & Abraham.	
MANCHESTER	...	Messrs. Jas. Woolley, Sons & Co.	
BIRMINGHAM	...	Messrs. Southall Bros. & Barclay.	
LEEDS	...	Messrs. Goodall, Backhouse & Co.	
BRISTOL	...	Messrs. Ferris & Co.	
CARDIFF	...	Messrs. Kernick & Son.	
CHESTER	...	Messrs. Grindley & Son.	

WHOLESALE AGENTS Wanted in all other important Districts and Abroad. Address the Special Agent.

SPECIAL AGENT:

Mr. SILVESTER, Pharmaceutical Chemist, Knutsford.

IMPORTANT TO SHIPPERS.



ASHWORTH'S PATENT METALLIC COMB-BRUSH AND METALLIC-BRISTLE COMB-BRUSH.

These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine tempered steel wires, about the thickness of ordinary bristles. This penetrates, SMOOTHS, and FIXES THE HAIR. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan	1/9	2/3	2/9
Gentlemen's Black Japan, Military Style	2/0	2/6	3/0
Dog, Cattle, and Horse Brushes	2/0	2/6	3/0

Prices of Metallic-Bristle Comb-Brush, post free.

TEMPERED FINE STEEL WIRE.			
Ladies' and Gentlemen's Black Japan	2/4	3/0	4/0
Ivory-coated	2/8	3/6	4/4
Gentlemen's Black Japan, Military Style	2/8	3/6	4/4

The "Humanitas" Curry Comb Brush, for Horses, Dogs, Cattle, &c.—Prices:

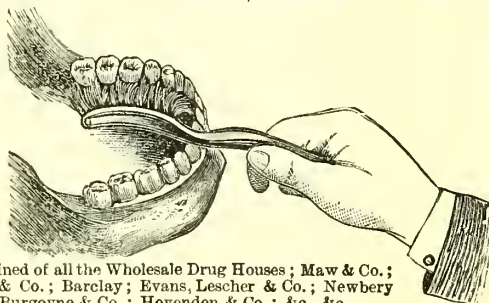
Made of iron wire, covered with white metal—No. 1, 1/0 each; No. 2, 1/6 each.
" fine steel wire, covered with white metal—No. 0, 1, 1/6; No. 0, 2, 2/0 each.
All Goods are forwarded safely packed in Neat Box.

ASHWORTH BROS., Collyhurst, Manchester, England.

DR. PIERREPONT'S PATENT "THOROUGH CLEANSING" TEETH BRUSHES.

Common Sense Triumphant! OVER 20,000 SOLD IN SIX MONTHS.

Prices and Illustrated Circulars on application to any of the Wholesale Houses.



Can be obtained of all the Wholesale Drug Houses; Maw & Co.; Lynch & Co.; Barclay; Evans, Lescher & Co.; Newbery & Co.; Burgoyne & Co.; Hovenden & Co.; &c., &c.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s.
Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY.
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

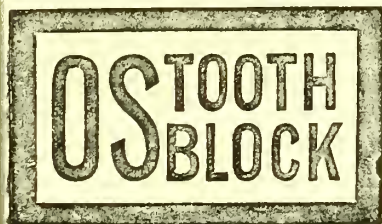
OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/1, 1/9, and 3/6; Wholesale, 9/15, and 30/ per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the Sole Consigner, THOMAS WEST, Chemist, Stretford, Manchester.

OSCAR SUTTON & CO., Preston, Lancashire.



O S TOOTH BLOCK

"THE BEST AND SAFEST DENTIFRICE."

Sold by all Chemists and Perfumers in elegant Crystal Toilet Ca-ket, price 2 6; also in Patent Metallic Box, price 1-. This celebrated Dentifrice enjoys the approval of the leading dentists and highest authorities in sanitary matters.

Hundreds of Testimonials.

TRADE MARK—REGISTERED.

Dr. J. J. POPE, M.R.C.S., L.S.A., Professor of Hygiene, Birkbeck Institute, Lecturer on the Special Staff of the National Health Society, London (author of "Number One, and How to Take Care of Him"), writes—

"I find your 'Tooth Block' a highly pleasant and most convenient dentifrice. It is as efficacious as it is elegant, and I should say peculiarly adapted for use in youth, from its non-injurious character and mild detergent properties."

Wholesale of Messrs. Evans, Barclay, Hovenden, Maw, Newbery, Thompson Edwards, Sanger, &c., London, and of all the leading Dental Houses; also of Messrs. Felton, Grimwade & Co., Roches, Tompitt & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

BEDDARD'S BELGRAVIA TOOTH-PASTE

(REGISTERED)

Is entirely different from any article of the kind, very much liked by customers, a most effectual dentifrice, and handsomely put up in large jars,

ONE SHILLING EACH.

WHOLESALE OF ALL PATENT HOUSES.

LIBERAL DISCOUNT TO LARGE BUYERS.

Prepared only by

JOHN BEDDARD,

48 CHURTON ST., BELGRAVE ROAD, LONDON, S.W.

Title Secured. Price 2/6. Cases of Six, 14/-



TRADE MARK 27668.

INVENTED BY A TALENTED PHYSICIAN.

Recommended by eminent Surgeon-Dentists. Patronised by the "Monde elegant" as the best and most agreeable liquid Dentifrice yet introduced.

PROPRIETORS—

BARTON BROTHERS, BRIGHTON.

Also Sole Proprietors of the Original

"BRIGHTON GLYCERINE CREAM."

WHOLESALE FROM

Messrs. Barclay, E. Cleaver, Edwards, Newbery, Sanger, Sutton, &c.

IMMENSE SALE.

WOODS' ARECA NUT TOOTH PASTE.

Price, 6d. and 1/- per Pot.

Sold by all Wholesale Houses.

WHITE AND SOUND TEETH.

JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been Fifty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY and BROWN,
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.



The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

PREPARED SILVERY WHITE GUTTA PERCHA ENAMEL,

For Stopping Decayed Teeth.

TRADE MARK

P. A. STEVENS,

CHEMIST AND SURGEON DENTIST,
(LATE OF HOXTON, N.)

72 MANSFIELD ROAD,
HAVERSTOCK HILL, N.W.

REGISTERED—NO. 3745.

SOLE PROPRIETOR AND MAKER OF THE ABOVE.

P. A. S. can supply the above to Wholesale Houses in Sheet or Sticks, in any quantity, with their name stamped upon each piece.

The above to be obtained of all Wholesale Houses. Price List and Samples sent Post Free.

SPECIAL NOTICE.—The words SILVERY WHITE GUTTA PERCHA ENAMEL for Stopping Decayed Teeth are registered as a Trade Mark. and will be protected.

WOMAN'S Greatest CHARM IS

NORINA'S EMOLLIENT.

It is unequalled for producing a dazzling purity of complexion, and giving it surpassing loveliness. It removes freckles, wrinkles, sunburn, spots, &c., improves the texture of the skin, rendering it exquisitely fine and soft, and showing the delicate blue tracings of the veins so much admired.

Price 6s. 6d. To be had of all Chemists and Perfumers.

Wholesale Agents, MESSRS. NEWBERY,
1 King Edward Street, Newgate Street, London.

SODA WATER MACHINE.

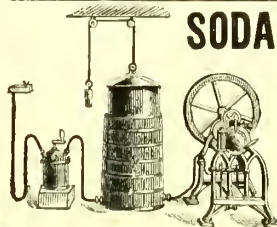
EASY TERMS.

CATALOGUE FREE.

WRITE TO

N. G. WILCOCKS,

BACK STREET, BATH.



SPONGES.

R. CRESSWELL & CO.,

SPONGE MERCHANTS & IMPORTERS,

32 Red Lion Square, London;

AND AT PIRÆUS AND SMYRNA.

ESTABLISHED 1850.



GOLD MEDAL AWARDED, BRUSSELS EXHIBITION, 1881.



Messrs. R. C. & Co. having secured large additional premises in Fisher Street, Red Lion Square, are now in a position to show off one of the most extensive Stocks of Sponges in the world. Buyers can inspect goods by the Case, Piece, or Weight, offered at prices lower than those of any other house.

PRICES CURRENT OF SANDED AND SANDLESS SPONGES, IN ORIGINAL CASES AS IMPORTED.

HONEY-COMB SPONGES.

No.	Qty.		Pieces in case about	Price case.	£	s.	d.
1	1st	Finest selected shapes, assorted sizes ...	130	12	0	0	
2	1st	Do. do. do. ...	75	7	0	0	
3	1st	Do. do. do. ...	45	4	0	0	
4	1st	Small selected shapes ...	275	7	0	0	
5	1st	Superior do. large Bath sizes	25	7	0	0	
6	2nd	Do. quality shapes, assorted sizes... ..	125	8	0	0	
7	2nd	Do. do. do. ...	75	4	4	0	
8	2nd	Good quality shapes, small ...	275	3	10	0	
9	2nd	Do. do. large Bath sizes	25	5	0	0	
10	3rd	Do. do. assorted sizes ...	145	5	5	0	
11	3rd	Do. do. do. ...	90	3	10	0	
12	3rd	Do. do. large Bath sizes	25	3	0	0	
13	4th	For Stable use, &c. ...	220	2	10	0	

FINE TURKEY SPONGES.

14	1st	Finest selected Cups, assorted sizes	110	18	0	0
15	1st	Do. do. do.	55	10	0	0
16	1st	Do. do. Bath sizes	35	12	0	0

Fine Turkey Sponges—continued.

No.	Qty.		Pieces in case about	Price case.	£	s.	d.
17	2nd	Superior Cups, assorted sizes	110	12	0	0	
18	2nd	Do. do.	55	7	0	0	
19	2nd	Do. Bath sizes	35	9	0	0	
20	3rd	Fine Cups, assorted sizes	110	9	0	0	
21	3rd	Do. do.	65	5	5	0	
22	3rd	Do. Bath sizes ...	35	7	0	0	
23	1st	Turkey Solids, assorted sizes	115	7	0	0	
24	2nd	Do. do.	110	5	10	0	
25	1st	Flat Saddle, assorted sizes	55	9	10	0	
26	1st	Do. do.	35	6	0	0	
27	2nd	Do. do.	55	6	10	0	
28	2nd	Do. do.	35	4	0	0	

BROWN TURKEY SPONGES.

29	1st	Finest selected, assorted sizes	140	4	10	0
30	1st	Do. do.	75	2	15	0
31	2nd	Superior quality, do.	140	3	3	0
32	2nd	Do. do.	75	2	0	0
33	3rd	Slate quality, do.	350	1	1	0

The above may be had Sanded or Sandless, as required.

ALL COMMUNICATIONS TO BE ADDRESSED TO LONDON OFFICES.



TRADE MARK.

LYNCH'S



SYDNEY, 1879.

ENEMAS.

SUBJOINED ARE PRESENT PRICES :

433A.	HIGGINSON'S, unvarnished india-rubber, with rectum pipe only, in stout hinged card-board box	...	...	...	...	...	...	...	per doz.	£	s.	d.
433B.	Ditto, with elastic-gum vagina pipe and leather shield	...	...	...	...	...	...	...	per doz.	1	4	0
434.	Ordinary Higginson's, barrel shape, with bone rectum pipe, elastic-gum vagina pipe, to plug on, and patent leather shield, in slide cedar box	...	...	...	...	...	...	...	per doz.	1	12	0
434A.	Ditto, ditto, with disconnecting mounts...	...	...	...	...	...	...	...	per doz.	1	14	0
435C.	LYNCH'S, requiring no metal mounts, in one continuous piece, warranted not to split, fitted with vulcanite rectum pipe, in slide cedar box	...	...	...	...	...	...	...	per doz.	1	10	0
435D.	Ditto, with elastic-gum vagina pipe, and leather shield, in slide cedar box	...	...	...	...	...	...	...	per doz.	1	15	0
436.	LYNCH'S FAMILY (Higginson's principle), fitted with bone bulb-pointed rectum pipe for adults, elastic-gum vagina pipe, and elastic-gum rectum pipe with bone shield for children, in mahogany box	...	...	...	...	...	...	...	per doz.	2	8	0
437.	Ditto, in slide cedar box	...	...	...	...	...	...	...	per doz.	2	3	0
437A.	LYNCH'S PERFECTION, in mahogany box	...	...	...	...	...	...	...	per doz.	2	17	0
437B.	Ditto, in slide cedar box	...	...	...	...	...	...	...	per doz.	2	10	0
437C.	Ditto, in superior mahogany box, with lock and key	...	...	...	...	...	...	...	per doz.	3	12	0
437D.	Ditto, in oval boxes of cloth and leather	...	...	...	...	...	...	...	per doz.	2	15	0
437E.	LYNCH'S COMPLETE HOUSEHOLD SYRINGE, consisting of Higginson's Enema with disconnecting mounts, fitted with bone bulb-pointed rectum pipe for adults, elastic-gum rectum pipe with bone shield for children, elastic-gum vagina pipe, and bone pipes for ear, eyes, and nose, in mahogany box	...	...	...	...	...	...	...	each	0	7	6

Discount—10 per cent. Monthly, 5 per cent. Half-yearly Account.

LYNCH & CO.,

ALDERSGATE STREET,
LONDON, E.C.

ALLCHIN'S SMELLING SALTS.

The increasing demand for these celebrated Smelling Salts has induced the Proprietor to bring them out in a more portable and elegant form than hitherto supplied. The New-shaped Bottles will be found well worth the attention of the Trade.

WHITE FLINT GLASS, Handsomely Cut, 3 Sizes, Retail 1/6, 2/-, 2/6
 " " " Watch Shape, for the Pocket, 3 Sizes, Retail 1/-, 1/6, 2/-

ALFRED ALLCHIN'S PHARMACEUTICAL PREPARATIONS.

SMELLING SALTS.—The MONOCARBONATE OF AMMONIA, manufactured by ALFRED ALLCHIN, is the Neutral Salt so much valued for the preparation of Smelling Salts. It retains its pungency as long as any Salt remains. 1-lb. bottles, 2s. 8d. each.

LIQ. AMMON. ODORIF., or **VOLATILE ESS.**, for Allchin's Ammon. Monocarb. In Stopped bottles, 4-oz., 1s. 8d.; 8-oz., 3s.; 16-oz., 6s. each.

PUNGENTS, with handsome Cut Stoppers, filled with Allchin's Smelling Salts, 8s. per doz.; retail, 1s.

OL. ROSÆ CONCENT.—One ounce of this Concentrated Solution of Anchusine, mixed with two pounds of Oil, will give it the usual colour; it is also admirably adapted for colouring Pomades, Lip Salve, Camphor Balls, &c. 4s. per lb.

OL. FLAV. CONC.—One ounce, added to two pounds of Pomade, will give the usual golden colour, which is permanent. 4s. per lb.

Sole Proprietors—

W. BUSH & CO. (late Allchin), Chemists, 180 Barnsbury Road, London.

TO BE HAD OF ALL THE WHOLESALE HOUSES.



"CALLICURA." THE CERTAIN CORN CURE.

REGISTERED.

PRICE, 1s. 1½d.

Wherever introduced a large sale ensues, as the Cure is a fact. Recommends itself, and so ensures a continually extending demand. "CALLICURA" is not a caustic, but merely a simple paint, a few applications of which deadens and kills the worst corns, so that they may be painlessly removed entire in a few days. Corns of 30 years' standing have been entirely eradicated when all other remedies have failed. The numerous Testimonials that are constantly being received testify to the fact that a Certain Cure has at last been found.

Attractive Handbills, with Name on, enclosed to any Wholesale House for Home or Foreign Trade.

Sold Wholesale by the usual London Houses. Sole Proprietor—

J. R. FAULKNER, 33 Ladbroke Grove Road, Notting Hill, LONDON, W.



Used and recommended by several eminent Physicians.

A PAINLESS & UNFAILING REMEDY.

This preparation has the advantage over similar preparations in being quite painless. After 2 or 3 applications the Corn—which will be destroyed—can be easily picked out, leaving the part healthy and free from pain.

It is put up in cases containing a Bottle of Paint, Adhesive Plaster, and Camel-hair Pencil, fixed in dozens, on neatly-bronzed show-cards, with counter bills.

Sample free by post, 7½d.

Prepared only by the Inventors, **J. HARGREAVES & SON, Chemists, 108 Fylde Road, Preston.**

London Depot: 1 & 2 Australian Avenue, E.C. Liverpool Depot: 149 Duke Street. Sold by all Patent Medicine Warehouses and Druggists' Sundriesmen.

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JAMES'S TOILET SPECIALITIES.

JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &c., and taking away Tan Freckles, Sunburn, &c. Sold by all Chemists, 1/1½ and 2/9 per box.

JAMES'S DEPILATORY,

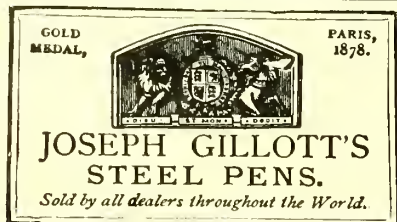
For the instant removal of Superfluous Hair. Sold by all Chemists, 1/- per box.

JAMES'S HERBAL POMADE,

For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES & CO., 226 Caledonian Rd. LONDON, N.



See page 117.

GELATINE AND GLUE MANUFACTURERS.

COIGNET & CO.

(Late COIGNET PÈRE & FILS),

LONDON, 150 Fenchurch St.; PARIS, 130 Rue Lafayette.

WORKS: ST. DENIS, PARIS, LYONS.

MANUFACTURERS OF

THICK GELATINES, FINE SHEET GELATINES, GLUES, RUSSIAN

GLUES, PHOSPHORUS, PHOSPHATES, ANIMAL CHARCOAL,

DEGELATINIZED BONES.

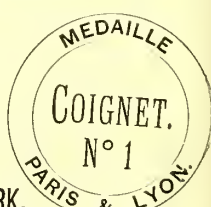
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1872—Cross of the Legion of Honour.

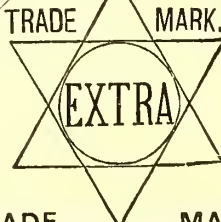
30 other Medals at Paris, London, Vienna, Philadelphia, Melbourne, Brussels, Amsterdam, etc., etc.



Sole Originator of the "Gold Medal"



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DRUGGISTS' SUNDRIES DEPARTMENT.

SAVAR'S

TRADE  MARK.

PROPRIETARY SPECIALITIES.

HOUSEHOLD REQUISITES.—MEDICAL REQUISITES.—TOILET REQUISITES.

SAVAR'S HOUSEHOLD REQUISITES.

ANIMAL SOAP (Non-Poisonous). 6d. packets.
 BRUNSWICK BLACK. 6d. and 1s. bottles.
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 FOSSILINE (SIMPLE).
 FURNITURE POLISH. In bottles, 1d., 2d., 6d., and 1s. each.
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 MARKING INK. 6d. and 1s. bottles.
 POMADE. Family magnum. Large 1s. bottles.
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SAVAR'S MEDICAL REQUISITES.

ABSORBENT COTTON WOOL. 6d. and 1s. boxes.
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 CHEST PROTECTORS (Various).
 COMBINATION MEDICINE SPOON (China). 1s. 6d. each.
 EAR SYRINGE. 1s. each.
 EMOLLIENT CAMPHOR ROLLS. 1d., 2d., 4d., and 6d. boxes.
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 FOSSILINE CORN & BUNION PLASTERS (Patent). 6d. and 1s. boxes.
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 FOSSILINE SIMPLE (Petroleum Jelly). 6d. and 1s. bottles.
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 "GOOD SAMARITAN" POROUS PLASTERS (Capsicum, Belladonna, and Strengthening.) Price 4d. each.

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 POROUS POOR MAN'S PLASTERS (by Royal Letters Patent). 3d. each.
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BEARS' GREASE. 6d. and 1s. pots.
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 COURT PLASTER. 1d., 2d., 3d., 6d., and 1s. cases. Cream of Lilies, 2s. bottles.
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 FLESH GLOVES. 6d. and 1s. per pair.
 FOSSILINE POMADE. 6d. and 1s. bottles.
 FOSSILINE TOILET SOAP. 6d. tablets, 1s. 6d. and 5s. boxes.
 FLORAL POMADES. 6d. and 1s. bottles.
 GLYCERINE JELLY (Otto Rose). 6d. and 1s. jars.
 JEWELLERY REQUISITES. 1s. each.
 LAVENDER WATER. 6d., 1s., 1s. 6d., and 3s. bottles.
 "MAY BLOSSOM" SERIES. See page 28.
 PERFUMERY FOR THE HANDKERCHIEF. 6d., 1s., 1s. 6d., 2s., 3s. 6d., and 5s. each.
 POMADES. Crystal, Marrow, Canthar, &c., 6d. and 1s. bottles.
 TOILET COMPANIONS. 10s. 6d. and 21s. each.
 TOOTH PASTE. 1s. and 2s. jars.
 VIOLET POWDER. In $\frac{1}{4}$ -lb. and $\frac{1}{2}$ -lb. Packets, 1s. 6d. per lb., or fancy 6d. boxes; also 1d. and 2d. packets.

A Complete Price Current of Druggists' Sundries, Proprietary Articles, Patent Medicines, &c., supplied on application.

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 LONDON.

EVANS, SONS & CO.,
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MANCHESTER OFFICE AND SHOWROOM—1 & 2 Exchange Buildings, Cromford Court, Market Street.
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BURROUGHS
SPIRITUS RECTIFICATUS P.B.

SPIRITS OF WINE

THE BEST ENGLISH GRAIN SPIRIT
FREE FROM FUSEL OIL. CHEMICALLY PURE
5 gallons 80 over proof at 20/1 net cash
Special Quotation for Quantity
DUTY FREE FOR EXPORT 4/4

Best BURROUGHS
Methylated
CHELSEA,
S.W.
AT LOWEST PRICES
BURROUGHS

METHYLATED SPIRIT AND FINISH

supplied of the best quality, to suit the requirements of all trades, by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

London Agents—JAMES CHAMBERS & CO., 291 Old Street, E.C.,

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JONES & MASON, METHYLATED SPIRIT MAKERS.

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SAMPLES AND PRICES UPON APPLICATION.

PAINTS, OILS, GREASES, VARNISHES, &c., FOR CASH WITH ORDER.

White Lead, Ground, guaranteed absolutely genuine, 20/-; Coloured Paints, from 9/- per cwt.; Oak Varnish, from 4/6; Greases from 4/- per cwt.; Lubricating Oils, from 9d. per gall.; Linseed, Cotton, Rape, Colza, Olive, Lard, Fish, Bloomless Mineral, Vegetable, and all other Oils, at exact market rates. Every description of Oil, Grease, Paint, Varnish, &c., supplied.

T. F. CHAMBERS & CO., KENSINGTON WORKS, HULL.

PURE SPIRITS OF WINE

FOR

TINCTURES, ESSENCES, PERFUMES, &c.,
OXFORD ROAD DISTILLERY, MANCHESTER.

MESSRS. SMITH & GIBB

Beg to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon.
63 over proof ..	0.8238 ..	20/10
60	0.8298 ..	20/4
55	0.8366 ..	19/10
50	0.8482 ..	19/4

Terms—Cash on Delivery. Jars to be returned or paid for.

For Exportation, Cask included, 4/0, 60 O.P., F.O.B.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 5 galls. 5/6; 6 galls. 6/-. When the empties are returned the money will be repaid.

EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & Sons are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide* P. J. Vol. I. No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,
5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,

And is sold in bottles, authenticated by a Government Stamp bearing their Names and Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d., or 2s. 9d.

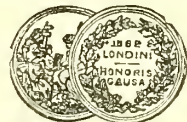
NEW YORK—Messrs. J. & S. FERGUSON, Pine Street. **PARIS**—Messrs. ROBERTS & CO., 23 Place Vendôme.

Medal, Paris Exhibition, 1867.

Medal, London Exhibition, 1862.



ESTABLISHED 1796.



WILKINSON, HEYWOOD & CLARK,

Varnish, Japan and Colour Works,

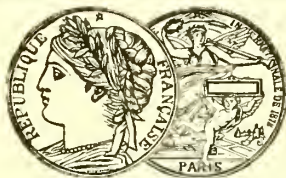
7 CALEDONIAN RD., LONDON, N.

Manufactory—WEST DRAYTON, MIDDLESEX.

DEPOTS IN ALL THE PRINCIPAL TOWNS OF EUROPE.

Paris—87 Avenue du Roule, Neuilly. Liverpool—30 Seel Street.

Gold Medal for Varnish and



Colours, Paris Exhibition, 1878.

Varnishes.—Varnishes of all descriptions for Railway Carriage Builders, Coach Builders, Decorators, Ship Builders, Agricultural Implement Makers, Paper Stainers, Floor Cloth Manufacturers, &c., &c. These Varnishes are all of acknowledged superiority, and will stand the severest tests.

Non-Blooming Varnishes for interior decoration, *guaranteed not to bloom.*

Colours, Dry, Ground and in Pulp, of all kinds.—These Colours have for many years past been supplied to all the leading Coach Builders, House Painters, Paper Stainers, and Agricultural Implement Makers in the United Kingdom and abroad. They are all of the very finest quality; and for brilliancy, softness, and body are unsurpassed.

Non-Poisonous Colours.—A complete series of original Colours, all guaranteed to be non-poisonous. From these Colours an infinite variety of delicate tints can be obtained. Primarily intended for distemper, they can be also used in oil and supplied in pulp.

Colours in Collapsible Tubes.—The advantages of these Tubes are well known. The packages are exceedingly portable; and the exact quantity required can be easily taken out and the remainder kept in perfect condition for any length of time. Guaranteed absolutely pure; and for brilliancy of colour, strength of staining power, and softness, they are unsurpassed.

Paints Ready for Use, in 1, 2, 3, 4, and 7 lb. Tins.—These Paints are intended for domestic use. The Colours are very brilliant, durable, and dry well, and with a good surface. The demand for these Mixed Paints is rapidly increasing, and large quantities are supplied to all parts of the country and to the Colonies. Tint cards sent on application.

Brushes.—Varnish and Paint Brushes of every description always in stock.

All Brushes manufactured by WILKINSON, HEYWOOD & CLARK bear the initials of the firm, have for years past been in great demand, and give the greatest satisfaction. Illustrated Price Lists sent on application.

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WILKINSON, HEYWOOD & CLARK have long enjoyed a great reputation amongst all the leading Coach Builders and Decorators, House Painters, Ship Builders; and for years past they have supplied their goods to the Admiralty, to the War Office, to the India Office, to the Colonial Office, to the Board of Trade, and to the largest Shipping Houses and Railway Companies.

PAINTS. VARNISHES. WOOD STAINS.



VIENNA.

READY-MIXED PAINTS,

Packed in 1, 2, 4, 7, and 14-lb. Tins.

28 USEFUL and SALEABLE TINTS,

Superior Colours, well packed, and
guaranteed to Dry Well.

HANDSOME SHOW BOARDS

(Framed and Glazed), with Specimens of
the Colours, supplied.PRICES AND SAMPLE CARD
ON APPLICATION.

MANUFACTURERS OF

OIL VARNISHES

(Every description).

JAPANS.

BRUNSWICK AND BERLIN BLACKS.

TEREBINE.

FRENCH POLISH.

WHITE AND BROWN HARD SPIRIT
VARNISHES.

KNOTTING.

LACQUERS.

DRYERS and

GROUND COLOURS

} of the finest
quality.

DRY COLOURS, all Prices and Shades.

IMPORTERS OF OCHRE,
ULTRAMARINE, &c.

LONDON.

WOOD STAINS,

"SPECIAL."

MAHOGANY, OAK, WALNUT

SATINWOOD,

ROSEWOOD, EBONY.

Draught, or packed in 6d. bottles ($\frac{1}{2}$ -pint).
Also in powder.

SHOW BOARDS,

With specimens of the Stained Woods,
supplied.The demand for these Stains is steadily
increasing. They possess great richness
and truth of colour, andARE OFFERED AT A REASON-
ABLE PRICE.

NOTICE.—All communications should be addressed to the Office—

LAYTON'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.

There is no connection with any firm of a similar name.

ESTABLISHED 1853.

BIGGS & OLIPHANT,

TIN WORKS,

HERTFORD ST., HAGGERSTON RD., LONDON, E.

MANUFACTURERS OF ALL KINDS OF

TIN CANISTERS, OIL BOTTLES, &c.,

FOR

CHEMISTS, DRUGGISTS, GROCERS, CONFECTIONERS,
AND OIL MERCHANTS.Also Packages suitable for the New Postal Arrangements
for Post Parcels.

PRICES ON APPLICATION.

FOR CLEANING PLATE.

BRADLEY & BOURDAS'S

ALBATUM or WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge,
a quarter of a century ago, the sale has amazingly increased
both at home and abroad. A trial is only needed to prove its
superiority over other plate powders in use. Sold in Boxes at
1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square,
and 48 Belgrave Road, London, S.W.

INDEX TO ADVERTISEMENTS,

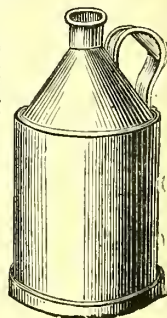
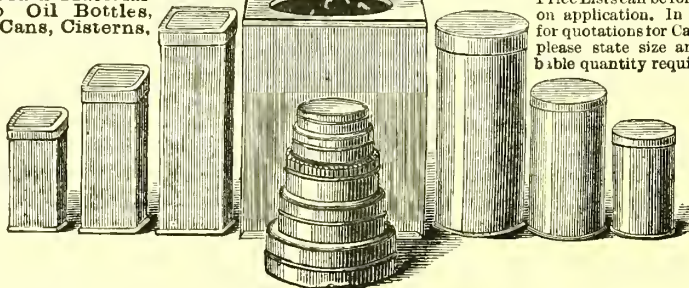
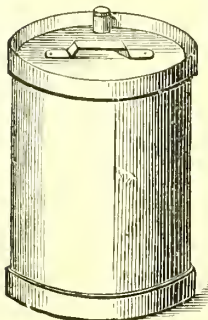
See pp. 41 and 42.

W. B. WILLIAMSON & SONS, Providence Works, WORCESTER,

MANUFACTURERS OF

TIN CANISTERS to hold
Coffee, Mustard, Tobacco,
Snuff, Biscuits, Jam, Con-
fectionery, Paint, and every
other description of Dry
or Fluid Material.
Also Oil Bottles,
Oil Cans, Cisterns,
&c.

PROPRIETORS OF

The PATENT for making
PAINT TINS with LEAD
TOPS.Names, &c., of Customers stamped
on covers of Tins if desired. Oil Bottle
Price Lists can be forwarded
on application. In writing
for quotations for Canisters,
please state size and pro-
bable quantity required.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**JOHN OAKEY & SONS,**

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish; Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 8d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S POLISHING PASTE,

For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Boxes, 1d.; Tins, 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876.

GOLD MEDAL, ADELAIDE, 1881. DIPLOMA OF MERIT, VIENNA, 1873. ORDER OF MERIT, MELBOURNE, 1880.

Needham's
Polishing Paste,
For Cleaning Bras
Copper, and Britan
Metal Goods, &c.

Pickering's Razor
Paste,
For sharpening Razors, &c.

Waterproof
Harness Blacking,
For Black Leather
Harness.

Joseph Pickering & Sons (J. Needham), Albyn Works, Sheffield.

Sheffield Knife
Powder,
For Table Knives, Fire
Irons, &c.

Plate Powder,
For Electro-plate
Articles, &c.

Furniture Polish,
For cleaning French
Polished Furniture, &c.

Brunswick
Black,
For all kinds of
Iron Work.

"LA BRILLANTINE"
(REGISTERED)
Is used by the Life, Horse, and Dragoon Guards,
the Fire Brigades, &c.

METALLIC POWDER
For Cleaning and Polishing Metals and
Glass (especially Brass).
PROPRIETORS—
J. F. BAUMGARTNER & CO.,
22 NEWMAN STREET, OXFORD STREET,
LONDON, W.
Sold by all Wholesale Houses. Beware of Imitations.

H. BESSEMER'S GOLD PAINT.**RETAIL PRICES:**

Small Bottles of Gold with Liquid	1s. 6d.	Large Bottles of Gold	3s. 6d.
Medium " " " & Bowl & Brush	2s. 6d.	" " Liquid	0s. 6d.

To be obtained of all Chemists, Artists' Colourmen, and Druggists' Sundriesmen.

NEW 1s. 6d. and 2s. 6d. PACKETS.

CONTENTS:—1 Bottle Gold Powder, 1 Bottle Mixing Liquid, 1 Mixing Bowl, 1 Brush, in Cardboard Box.
Where the Bowl and Brush are not required, the usual 1s. 6d. Packet should be purchased, as it contains a larger quantity of both Gold and Liquid.

A Copper and Silver Paint, at the same prices, and yielding equally good results, can be obtained.

NOTICE.—The Gold Paint is so easy of application, economical in use, and excellent in appearance, that it is extensively employed in the Ornamental Gilding of Decorative Mouldings, Carvings, and all Fancy Ornaments made either of Metal, Wood, Porcelain, or Plaster, and the effect that can be produced, even by unskilled hands, makes it useful to all engaged in fancy or home embellishment.

Sole Proprietor and Manufacturer, } **RICHARD J. ALLEN, Mansfield Place, Kentish Town, London, N.W.**

If Translations are supplied, Circulars, Cards, or Labels will be printed in any language necessary for its sale.

Office, Show Rooms, and Factory—

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(Near Whitmore Bridge.)

DOWNHAM ROAD, KINGSLAND, LONDON, N.

LLOYD RAYNER,

Medical and General Shop Fitter,

SHOW CASE MAKER, FIXTURE DEALER, &c.,

Has removed from 333 Kingsland Road to more commodious premises at above addresses, where the Show Rooms are complete with every description of Shop Fittings, Show Cases, and utensils required by Chemists, Surgeons, Dentists, and all Trades.

Chemists' Secondhand Fixtures, Stock, and utensils bought and exchanged.

LLOYD RAYNER'S £75 CHEMIST'S SHOP,

Fitted complete with all New Goods, including Glass Show Cases, Gold-Labelled Shop Bottles, Jars, Carboys, &c. If for Export, suitable for any climate, including packing cases, and delivered to any of the London Docks free, £85. The above fittings are suitable for a shop 14 ft. long by 12 ft. wide.

Also a Second Quality Chemist's Shop is fitted complete for £55. If for Export, £65.

Hours of Business, 9 a.m. to 6 p.m. Saturdays, 9 a.m. to 1 p.m.

N.B.—The above Premises are within a few minutes' walk of Haggerston Station, N.L. Railway, or Omnibuses and Trams.

HENRY MARKS & SONS, SPONGE MERCHANTS,

45 Houndsditch, London, E.C.; and at Hydra & Syra (Greece), and Symi & Smyrna (Turkey).

(ESTABLISHED 1810.)

WHOLESALE AND EXPORT ONLY.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

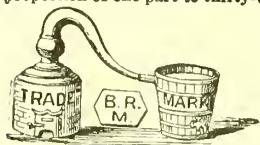
Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopœia.



	Per lb.		Per lb.		Per lb.		Per lb.
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
" Anisi, "	4/0	" Cassia, "	4/0	" Menth. Pip. "	4/0	" Rose, "	8/6
" Camphoræ, "	4/0	" Flor. Aurant. "	8/6	" Ang. Cōn. 6/0		" Rose Virgin, "	10/6
" Carui, "	4/0	" Flor. Sambuci, "	8/6	" Virid. "	4/0		

The above are put up in Bottles of ½ lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over cork. Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hatrick & Co.; J. Mackay & Co., J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggitt, Thirsk; Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKesson & Robbins, New York. Special terms for large quantities may be had from

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SEELEY'S HARD RUBBER TRUSSES.



Fig. 1.



Fig. 5.



Fig. 2.

Fine Steel Springs, neatly covered with highly-polished Hard Rubber. Made in every desirable pattern; with Pads anatomically constructed. Light, cool, cleanly, durable; unequalled in quality, finish, and practical construction. Unaffected by time, use, or climate; used in bathing. Always Reliable. Prices reduced to meet the popular demands. Sold and supplied by all leading Druggists and Dealers. To avoid Spurious Imitations, see Genuine stamped (Spring and Strop), "I. B. Seeley—Warranted."

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Syrup. Ferri Phosph. Comp. (Squire).

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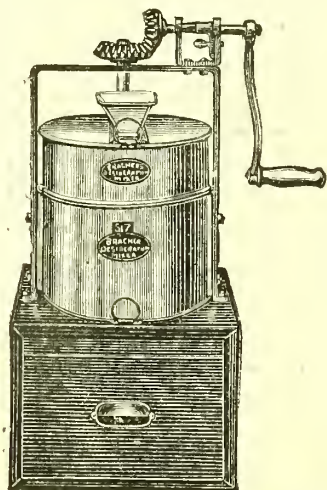
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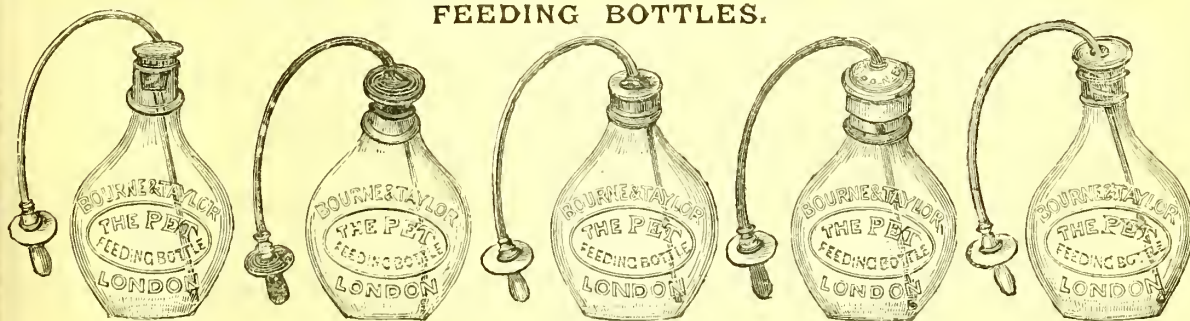
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"The Pet."—8.	Ditto, " White	4/- "
"The Pet."—9.	Ditto, " Black or Brown ditto in Paper Boxes	4/3 "
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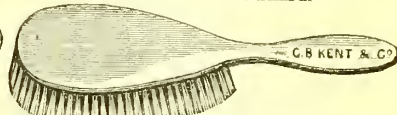
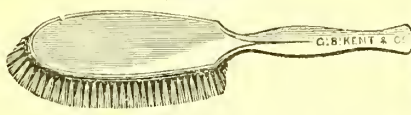
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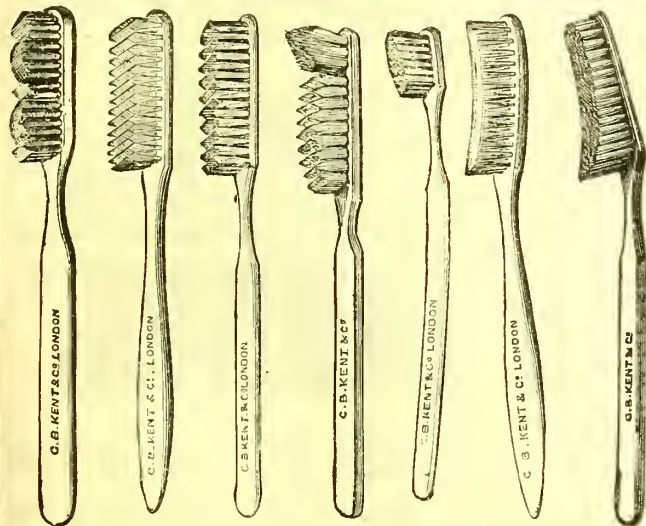
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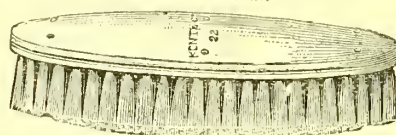
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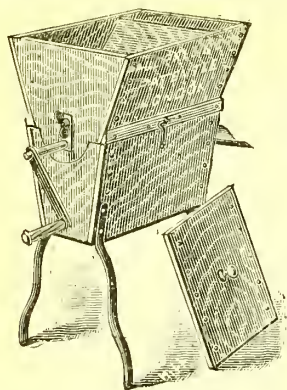


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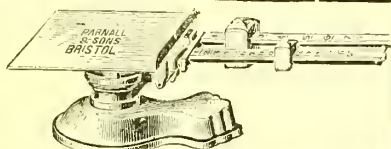
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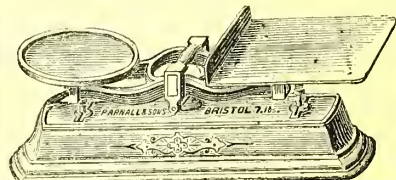
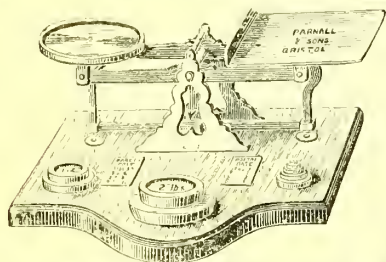
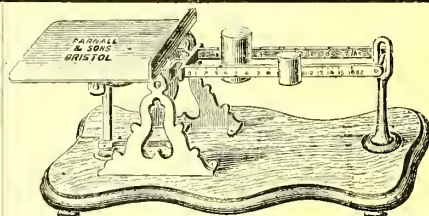
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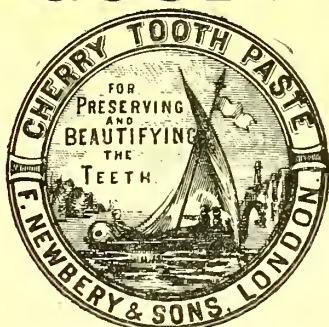
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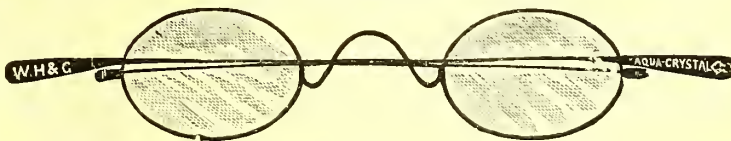
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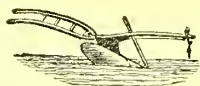
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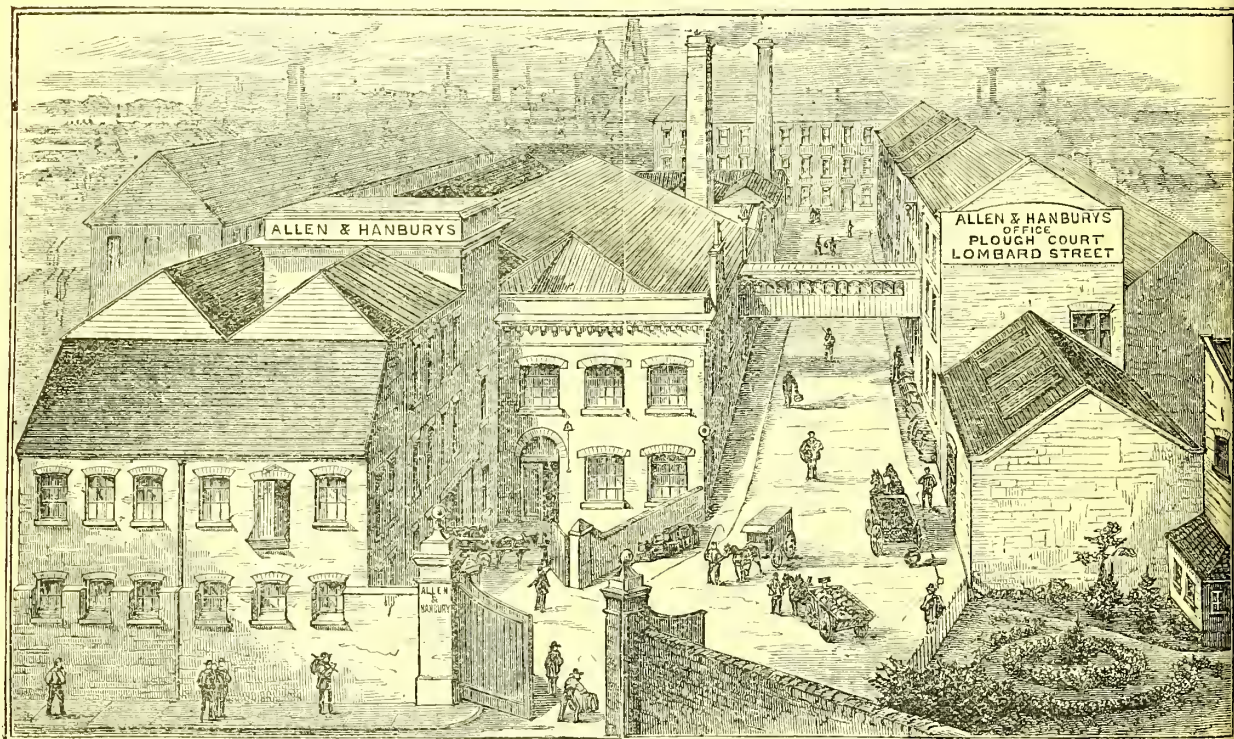
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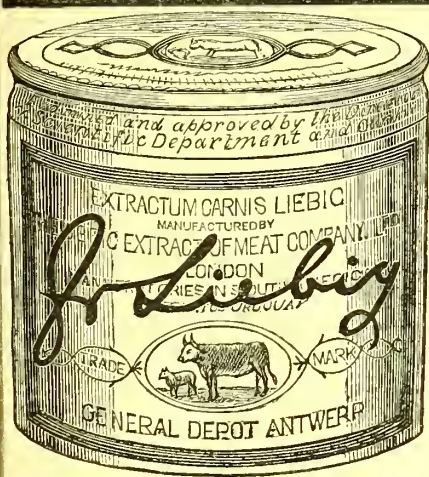
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Second: With our cold process no direct application of heat is used. To coat a pill with gelatine, it must be dipped into a hot solution at a heat necessary to keep the gelatine fluid.

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Fourth: Gelatine becomes exceedingly hard in time: sugar, on the contrary, attracts moisture, being hygroscopic. Pills coated with sugar get softer by age, rather than harder.

Fifth: Sugar dissolves evenly from the surface of the pill. A gelatine-coated pill lies in the stomach until the coating bursts. Throw a sugar-coated pill into cold water and see how soon the coating dissolves; try this with a gelatine-coated pill, giving it the advantage of hot water: see how long it takes the coating to swell and burst.

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(See THE CHEMIST AND DRUGGIST, Oct. 14, 1882, page 457.)

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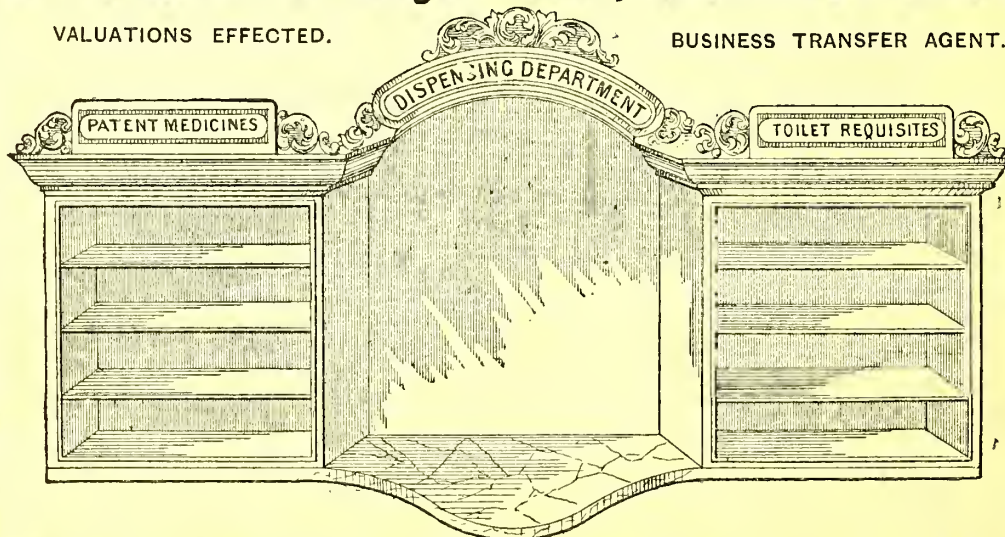
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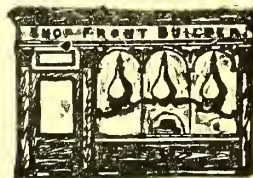
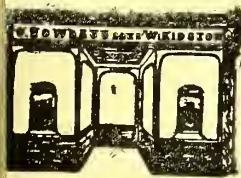
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£100 CASH, or Stock and Fixtures at Valuation.—For immediate disposal, a general Mixed Drug Trade, situated in a thickly populated iron and coal district; returning £5 per week as a branch, with irregular attention; has done over £15, but has been neglected; no opposition within three-quarters of a mile; corner shop, two plate-glass windows, fairly good house; rent and expenses low, vendor having accepted an appointment which takes up all his time. Apply, H. D. P., care of Wyleys & Co., Wholesale Druggists, Coventry and London.

FOR DISPOSAL.—Apothecary's Shop, Cordoba, Argentine Republic; situated at corner of principal square, opposite Cathedral; gross annual receipts, £3,709; net, £2,300; present proprietor retiring from business; established 59 years. Cordoba is capital of province, with 50,000 inhabitants; very healthy climate, and great resort for invalids; wholesale druggist and chemist business could be profitably added; large house, and stores well stocked. For further particulars, apply 59/25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

TO CHEMISTS AND DRUGGISTS, PHARMACEUTICAL CHEMISTS, APOTHECARIES, &c.

FOR SALE, a very old-established Business (where a good counter Prescribing practice is done) in one of the most important provincial towns in the South of Ireland, supported by the leading medical men, patronised by the nobility and gentry, and enjoying thoroughly the confidence of the populace of the town and surrounding districts. The shop has lately been considerably enlarged and refitted at great expense, and contains every requisite for compounding prescriptions, along with a splendid assortment of drugs, druggists' sundries, and patent medicines. House in good repair, rent moderate, half of which is at present paid by sub-letting small portion of upper part. Terms, cash; price, moderate. N.B.—Above offers a splendid opportunity for an energetic man; satisfactory reasons for disposing of the establishment. 58/16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SALE BY AUCTION.

OLD-ESTABLISHED CHEMIST'S SHOP.

GREAT YARMOUTH.

SAMUEL ALDRED will **SELL** by **AUCTION**, at the **STAR HOTEL, YARMOUTH**, on **THURSDAY, AUGUST 23**, at 6 for 7 o'clock, the old-established **FREEHOLD CHEMIST'S SHOP** and **DWELLING-HOUSE** on the Church Plain, occupying a commanding corner position, for many years in the occupation of G. S. F. Skoulding deceased, and now carried on by his executors, who give immediate possession, thus securing the goodwill to the purchaser, who will have the option of taking the stock-in-trade and utensils at a valuation.

Particulars of Messrs. Worship & Rising, solicitors, or of the Auctioneer, Great Yarmouth.

TO LET.

TO LET.—Two handsome Shops, in the best position of a rising town about 17 miles from London; good opening for a Chemist, Ironmonger, Stationer, &c. Apply to Messrs. Eiloart, Auctioneers and Surveyors, 40 Chancery Lane, W.C.

TO CHEMICAL MANUFACTURERS, Soap Boilers, Tar Refiners, and others.—To be Sold or Let on Building Lease, capital Sites, suitable for factories; without restriction; eligibly situated on the north side of the river Thames; only one tide from London Bridge, and close to railway station; price and ground rent low. Apply to H. F. Kite, 11 Queen Victoria Street, E.C.

EMPLOYERS WANTING ASSISTANTS.

WANTED, an Assistant; outdoor; for Mixed Country Business. Apply, stating age, experience, and salary required, to J. H., care of Baron, Harveys & Co., Giltspur Street, London.

JUNIOR ASSISTANT with minor qualification required for the West Indies. A good character for soberness and honesty indispensable. Apply to Hodgkinsons, Stead, and Treacher, 198 Upper Whitecross Street, E.C.

WANTED, a Manager for a General Business in a country town. Apply by letter to B. care of Messrs. Hodgkinsons, Stead, and Treacher, 198 Upper Whitecross Street, stating age, qualification, and salary required.

WANTED, immediately, an Assistant (outdoor), one accustomed to a good country trade. Apply, stating age, references, and salary required, to W. H. Stanway, Chemist, Kingston, Herefordshire.

WANTED, young man with a knowledge of Chemistry; some acquaintance with the making of cyanides and rouge desirable. Apply, B. Newman & Co., Castle Hill, Sheffield.

TO CHEMISTS AND DRUGGISTS.—Assistants wanted for a first-class firm in India, an experienced assistant fully qualified; 4 years' agreement. Apply, by letter only, C992, Messrs. Deacons, 154 Leadenhall Street, London.

WHOLESALE.—Experienced man wanted at counter for finishing off, &c. Apply, stating age, experience, and wages required, to "Alpha," care of C. R. Brown, 40 Sun Street, Finsbury.

FRONT COUNTERMAN WANTED in a large establishment where five are kept. Address, with age and salary required, "Secretary," 135 Queen's Road, Brighton.

WANTED, on August 28th, a Junior of obliging disposition, aged about 21 or 22, for a Mixed Country Drug Business with oils, paints, and light grocery; must be very steady and willing; hours 8 to 8; with very little night or Sunday duty; comfortable home. Apply, stating full particulars, to H. Milner Hughes, Chemist, Overton, *via* Raabon.

WANTED, immediately, a qualified indoor Assistant, to manage the Drug Department and assist generally in a Mixed Business in a small country town in the North Riding Yorkshire; short hours. Apply, stating age, salary, and references, in the first instance to E. Mackay, Chemist, Bradford, Yorkshire.

ASSISTANTS WANTING SITUATIONS.

ASSISTANT; 34; steady and active; well up in prescribing and teeth extracting (north preferred). Mr. Kirk, Junior, Thornley, Durham.

JUNIOR; London preferred; aged 20; passed preliminary. H. G. B., 1A Moreton Street, Piccadilly.

WANTED; as Invoice Clerk, &c., in Wholesale House, London; 6 years' experience in retail trade; aged 19½. Apply, T. Moody, 6 Walkergate, Louth, Lincoln.

TO CHEMISTS.—A Gentleman of varied experience and well connected will shortly be open to manage a Branch Business. 59/16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

A GENTLEMAN accustomed to call upon Chemists and Drysalter throughout Lancashire is open to re-engagement; would accept one or two good Commissions. 103/44, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

A PHARMACEUTICAL CHEMIST wishes to recommend a married man as Manager for Branch or Assistant, outdoor; 14 years' experience; state salary and full particulars. "Alpha," care of Raines & Co., York.

WANTED, a situation with time for study; will give first six months gratis. Apply, "Delta," G. S. Boutall, Chemist, 52 Marchmont Street, Russell Square, W.C.

NATAL or AUSTRALIA.—Pharmaceutical Chemist, aged 38, married, long experience, 20 years abstainer, wishes situation as above; can give unexceptional references. Apply to W. F. F., care of W. F. Wells, Esq., Pharmaceutical Chemist, 20 Upper Baggot Street, Dublin.

A S LOCUM TENENS or Manager; Branch or otherwise; of large experience; good references, &c.; thoroughly well up in Dentistry. A liberty after 21st August. 58/33, Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

TO WHOLESALE DRUGGISTS, DRYSALTERS, &c.—A Young Gentleman, with 10 years' experience in the Retail Drug Trade, seeks a Situation as Traveller for a firm where with capital he might eventually look for a Partnership. Address, 58/37, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ENGAGEMENT wanted by a Chemist, certificated, who, for many years past, has been managing one of the leading quinine manufacturing concerns of the Continent; advertiser is thoroughly conversant with three modern languages. Please address, F. 1496, care of Rudolf Mosse, Stuttgart, Germany.

APPRENTICESHIPS.

WANTED Immediately, by a Pharmaceutical Chemist, in an inland watering place, a well-educated respectable Youth as Apprentice; comfortable home; hours easy; for particulars write to 51/7, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

ADVERTISER wishes to learn process of Making Bisulphate of Lime on a large scale; liberal terms to a practical man. Address L. S. B., Messrs. Dawson & Sons, 121 Cannon Street, London, E.C.

TO CAPITALISTS.—For Disposal, a Speciality; profits on 9 months' orders are £560; £800 will buy it. M. C. 30, office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO COMMISSION AGENTS AND TRAVELLERS calling on Chemists, Grocers, Italian Warehousemen, Stores, &c., who can introduce Proprietary Articles of household use; Terms liberal; samples small and light. Address H. H. P., 4 Salisbury Court, London, E.C.

WANTED, perfectly Anhydrous Ammonia, in quantities of not less than half a ton at a time. Apply to New Zealand Loan and Mercantile Agency Company (Limited), 1 Queen Victoria Street, London.

WANTED, an Agent in a shipping town for a Chemist and Druggist in Bombay; preference given to one in a position to supply drugs, perfumery, patients' requisites, &c., on commission sale. Send full particulars to "Joppa," care of Post Office, Dumfries.

FOR DISPOSAL, small Photographic Business in good working order; main entrance to Victoria Park; good neighbourhood; same hands 20 years; rent £34, with 10 years' lease; small premium, or lenses, accessories and specimens separate; continued ill-health sole cause; proprietor retiring. Address, S., Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

ESTABLISHED 1851.

BIRKBECK BANK.—Southampton Buildings, Chancery Lane.

Current Accounts opened according to the usual practice of other Bankers, and Interest allowed on the minimum monthly balances which not drawn below £25. No commission charged for Keeping Accounts, excepting under exceptional circumstances. The Bank also receives money on Deposit at Three per cent. Interest, repayable on demand. The Bank undertakes for its Customers, free of charge, the custody of Deeds, Writings, and other Securities and Valuables; the collection of Bills of Exchange, Dividends, and Coupons; and the purchase and sale of Stocks, Shares, and Annuities. Letters of Credit and Circular Notes issued. A Pamphlet, with full particulars, on application. FRANCIS RAVENSCROFT, Manager.

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WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

HENRY YOUNG,

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AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES-

Arnicated White Felt Corn Plasters.

Thin, 12 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 12 in box (original 1s. fancy boxes) ...	3/4 "
Thin, 1 gross in box ...	1/10 per gross.
Thick, 1 gross in glass-top box ...	3/0 "

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Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
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Large Thin, 1/2 gross in box ...	4/6 per gross.
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SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless imitations.

Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).

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(REGISTERED)



TRADE MARK.

For sending Medicines and Liquids by the Parcels Post. Sanctioned by the Authorities in Liverpool, Manchester, and Birmingham.

For	...	...	...	...	2	3	4	6	8	12	16 oz. bottles.
					12/-	13/-	14/-	15/6	17/-	18/6	21/- per gross.
Fitted with Bottles complete	...	...	...	...	22/-	24/-	25/-	27/6	29/-	38/6	44/-

LESS 10 PER CENT. DISCOUNT CURRENT ACCOUNT.

EVANS, LESCHER & WEBB,

Aug. 1, 1883.

LONDON.

EVANS, SONS & CO.,

LIVERPOOL.

DRUGS, CHEMICALS, & DRYSALTERIES.
WHOLESALE AND FOR EXPORTATION.

13 LOWER HILLGATE, STOCKPORT: June 25th, 1883.

We, the Executors of the late E. P. HORNBY, Chemist and Druggist, have this day disposed of the entire Business and Premises owned by him, and previously by SIMS & SHAW, to Messrs. SAMUEL & THOMAS KAY, of the firm of KAY BROS. The transfer includes the Family Recipes, Private Formulae, Specialities, and Prescription Books from the time of OLIVE SIMS, who founded the Business A.D. 1786, and we solicit for them that support and confidence so long accorded to ourselves and predecessors.

For self and co-Executor of

E. P. HORNBY.

CHARLES H. HORNBY.

9, & 13 LOWER HILLGATE.

Messrs. KAY BROTHERS, in addition to their present extensive Business that of the late E. P. HORNBY, beg to assure their present and future customers of an earnest desire to maintain a high character for the purity and excellence of all things pertaining to the business. The premises will comprise 7, 9 & 13 Lower Hillgate. Drysaltery Warehouse in Roston Brow, and the large Mill in St. Petersburg, now converted into a Laboratory and Works; the whole having a ground space of over 1000 square yards, independent of upper rooms. Their Stock of Drugs, Drysalteries, and Chemicals now being one of the largest and best in the kingdom (all duties and inferior drugs being destroyed), and having arrangements with brokers in London and Liverpool, they are enabled to supply original packages for the largest consumers as well as the smallest quantities on the best terms. Surgeons' own Formulae and Pills of the Pharmacopoeia (sugar coated). New and approved remedies, as introduced, are added to stock, and the Speciality of Medicines for the simple ailments of Man and Animals will remain a recognised branch of their business.

"Macniven & Cameron's Pens are the Best."

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"1,745 NEWSPAPERS RECOMMEND THEM."—See *The Graphic*.**THE PICKWICK PEN.****THE HINDOO PEN,**
Nos. 1, 2, and 3.FOR FINE WRITING.
THE COMMERCIAL PEN.**THE WAVERLEY PEN.**

67 SAMPLE BOX, WITH ALL KINDS, BY POST, 1s.

"They come as a boon and a blessing to men.
The Pickwick, the Owl, and the Waverley Pen."—*Oman Times*.

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SHIPPERS AND DEALERS SUPPLIED AT SPECIAL RATES.

PATENTEES OF PENS AND PENHOLDERS.

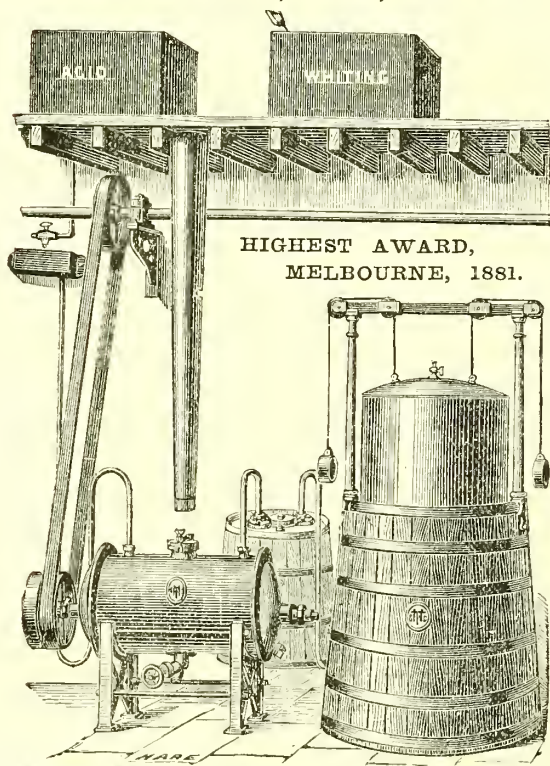
MACNIVEN & CAMERON, 23 to 33 Blair St., EDINBURGH,

Pen Makers to Her Majesty's Government Offices (Estab. 1770).

"The world owes a debt of gratitude to the patentees for their excellent inventions."
67-News of the party offering imitations of these Pens. —*Sun*.

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GOLD MEDAL, PARIS, 1878.



HIGHEST AWARD,
MELBOURNE, 1881.

84, 85 Whitecross Street, London.

"FIVE FIRST-CLASS MEDALS AWARDED"

For very superior quality, make, and special excellence in finish.

THE BRITISH SYPHON

EUGSTER & KOERTGEN, MANUFACTURING CO.

PROPRIETORS.

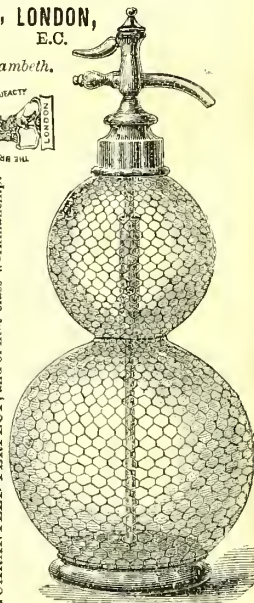
2 GRESHAM BUILDINGS, LONDON,

Works: E.C.
Wickham St., Lambeth.



Specimen of Trade Mark engraved on the Siphon Bottles by the acid Name stamped on the metal tops free for orders of one gross.

IMPORTANT.—In ordering our Seltzenes through Agents, distinctly state that you require the "Lion and Shield" brand, and see that you get it, as often on our Seltzenes, which seldom occurs, the Stopper is always fitted with this washer, ready to be inserted in a new Bottle. Therefore it is the most durable and inexpensive Stopper in the trade.



SYPHONS.

Short Lever... .. 22/6 per doz. net.
Long " " " " 24/0
White, Blue, Amber, or Green Bottles,
Cylindrical or Oval shaped.
Silver-plated tops, 9/- per doz. extra.

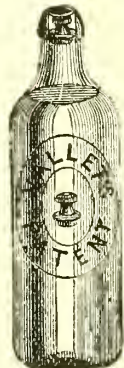
Each Seltzenes and Siphon thoroughly tested before sent out.
All metal warranted free from lead.

SELTZOGENES.

3 pint wire covered, 13/- cane covd. 12/6
" " " " 18/- " 19/-
" " " " 30/-
Silver-plated Wire or Top, 5/- extra.
Drop Cups, Measures, Fittings for Re-
pairs, &c. Liberal discount.

VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

Fig. 2. For Mineral Waters and Gaseous Liquids,
Are now used by upwards of 900 Soda Water Manufacturers
in the United Kingdom.



PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as
Fig. 3, 4/6; ditto, as per Fig. 4, 4/6; Patent Stoppered Bottles, ready
for use: ditto Half Bottles, ditto; Patent Unstoppered Bottles: ditto
Half Bottles: Fig. 9 Boxwood Bottle Openers, polished, 8/6; ditto,
fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto,
fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.

Fig. 1.

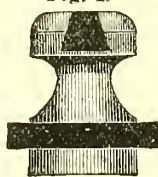


Fig. 8.



Fig. 1 Stoppers, when invoiced separately, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time folding in the hollow part of the stem when passing into the Bottle. It is the only Stopper which requires no tool to fit the Bottle with; and when a Bottle breaks, which seldom occurs, the Stopper is always fitted with this washer, ready to be inserted in a new Bottle. Therefore it is the most durable and inexpensive Stopper in the trade.

ADVANTAGES.—These Stoppers cannot break the Bottles. The smallest surface of indiarubber ever exposed to the liquid of any Stopper out. The Stoppers are inserted without trouble. No extra cost for Bottles. The Stoppers are cheap, very durable, and particularly clean. The Filling Machine is not expensive, and quick in action. Any Filling Machine, however, will do. The Patentee guarantees the Stoppers perfect gasholders, therefore no leakage is possible. That Bottles may be opened, with or without an opener, by the pressure of the finger.

NOTICE TO THE TRADE.

It having come to my knowledge that certain parties conversant with the great and acknowledged superiority of my Patent Stopper, have so re-modelled there so as to constitute clear case of infringement upon my rights, I wish it to be known that I intend to take such steps against the said parties as may appear desirable, should this notice not be effectual.

Sample and Particulars sent on application to

L. VALLET, 49 EVERTON RD., LIVERPOOL.

EUGENE GERAUT & CO.,

PAATENTES AND MANUFACTURERS OF

SODA WATER MACHINES, FILLING MACHINES,
SYPHONS, SELTZOGENES, &c., &c.,

1 & 2 Corporation Buildings, Farringdon Road, London, E.C.

SYPHONS.

Clear or coloured glass (white, blue, green, or yellow), pure ENGLISH BLOCK TIN TOPS, with piston or cap.

22/6

per dozen, for quantities of not less than one gross.

Packing in Cask, 5/- per gross.

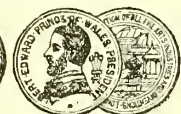
The Name marked on the metals free of charge for quantities of not less than one gross.

The Name engraved with Trade Mark, from 1/6 to 2/6 per dozen extra.

Illustrated Catalogue on application.



1878.



1873.

NEW PATENT LEVER SELTZOGENES.

For immediate production of Eau de Vichy, Soda Water, Sparkling
Lemonade, and Aerated Waters.

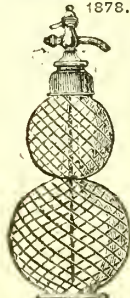
First introduced by EUGENE GERAUT & Co. in 1853.

WHOLESALE PRICES
as follows:—

2-pint Size, Wire, 13/0; Cane, 13/6
7-pint " " " " 18/0; " 19/0
8-pint " " " " 30/0; " 32/0
3-pint Size, strongly silver-
plated, richly decorated
Porcelain stands .. each 30/0
5-pint ditto " 38/0
8-pint ditto " 48/0

IMPORTANT NOTICE!
For orders of three, 15 per cent.
Liberal discount allowed of quan-
tities upwards. Strongly silver-
plated top, 5/0 extra.

Powders for the above.
12 Charges 100 Charges
3-pint size, in Per doz. Per doz.
hand-bone far Boxes. Boxes.
filled boxes 21/0 18/6
5-pint ditto .. 20/0 16/0
8-pint ditto .. 51/0 44/6
Liberal Discount for Quantities.
Our well-known Seltzenes are improved yearly and have already
won a public test of upwards of Twenty Years, and are acknow-
ledged as THE VERY BEST.



SODA WATER MACHINERY,

And all Appliances connected therewith, for the Manufacture of the Highest-class Waters, by

BARNETT & FOSTER,

26^T EAGLE WHARF ROAD, NEW NORTH ROAD, LONDON, N.

Medals—London, 1862, 1873, 1874; Paris, 1867, 1878; Vienna, Philadelphia, Cape, &c. Highest Award, Sydney, 1879-80.



B. & F. are Sole Agents for CODD'S PATENT SODA WATER BOTTLE, in use in all parts of the world.

This Bottle for containing Aerated Waters is the most efficient of any yet invented, and is above all the one most appreciated by the public.

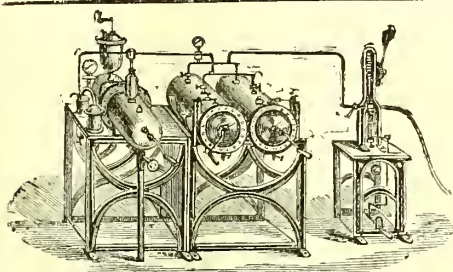
Prices, and all Particulars, upon application.

B. & F. are Sole Manufacturers for the "London-made" Syphon Bottle, preferred by the public to all others. It is the most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the handle being sufficient; it produces a more highly charged gaseous water than is usually obtained from syphons; it compares most favourably in appearance with any.

Prices, per gross, quart size, 22¹/₂ per doz.; duto, pint size, 21¹/₂ per doz. Packing extra.



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SODA WATER MACHINE COMPLETE, WITH RACK.

SODA WATER MACHINERY,

ALL KINDS.

PATENT STOPPERED BOTTLES

ALL KINDS.

ICE-MAKING MACHINES,

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SEPARATE CATALOGUES, POST FREE.

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CROSSLEY'S AND "BISSCHOP" GAS ENGINES.

FRATELLI DE PASQUALE & CO.,

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Manufacturers, established on the very growth place, for the Finest

ESSENTIAL OILS

Of LEMON, BERGAMOT, SWEET AND BITTER ORANGE. Recently Awarded at the Exhibitions of

CALTANISSETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their manufactory, and Silver Medal for Excellence of Produce.

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A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all Particulars may be had from our Wholesale Agents—

SAMUEL LAMBERT & CO., 137 Fenchurch St., London,

OR FROM MESSINA DIRECT.

Caution

W. A. ROSS, the Original Patentee and Maker of
The Celebrated Belfast Ginger Ale, cautions
the Public that the "GENUINE" can only be had at

Ross's Royal Ginger Ale
AND
Aerated Water Works Belfast

NAME ON CORK, CAPSULE, AND LABEL REGISTERED.

EXPORT ORDERS HAVE SPECIAL ATTENTION.

Persons using Aerated Waters should try Ross's, otherwise
they will never know to what perfection Aerated Waters can be
brought.—*Canterbury Journal of Commerce*, 17th June, 1882.

BINGLEY'S SUPERIOR Ginger Ale.

After numerous experiments the Proprietor is
enabled to offer a beverage which is considered by
many to be one of the *very best* of its kind.

It is manufactured especially for sale by Chemists
doing a family trade.

COMPARISONS ARE INVITED.

Samples may be obtained gratis, also trade terms, on application to

J. BINGLEY, NORTHAMPTON.

NEW AND IMPORTANT DISCOVERY.

GINGER ALE
FROM PURE JAMAICA GINGER.

THE ROYAL YORK-
SHIRE GINGER ALE,
from Pure Jamaica Ginger, is Non-
Intoxicating.



ABSOLUTELY PURE.—
See Analysis by Drs. J. H. HASSALL,
M.D., and OTTO HEHNER, F.C.S.

The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the
same time having a CLEAR and SPARKLING DRINK, has, after much labour
and expense, been thoroughly overcome by

Messrs. HARSTON & CO., of LEEDS.

FISHER'S
SOLUBLE ESSENCE OF GINGER,
SOLUBLE ESSENCE OF LEMON,
AND
GINGER ALE ESSENCE
ARE THE BEST YET INTRODUCED.

Dr. Thresh says of the Ginger Essence: "It is by far the
best Soluble Essence I have yet seen, and I doubt the possi-
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Prices and Samples from the Maker.

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CANTRELL & COCHRANE'S

CELEBRATED

**AROMATIC GINGER ALE,
SPARKLING MONTSERRAT,
CLUB SODA, AND
MINERAL WATERS,**

As supplied to Her Majesty's Imperial Houses
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Have been Awarded NINETEEN GOLD AND
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*Goods for Export are specially prepared, and are guaranteed
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By Special Appointment to
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BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,
BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Pamphlets and Price on application. Agents appointed.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Contains Chloride of Soda, Bicarbonates, Arsenics (28 millig. of arseniate of soda
per litre).

Dose: Half a glass to three glasses per day before or during meals.

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Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon.
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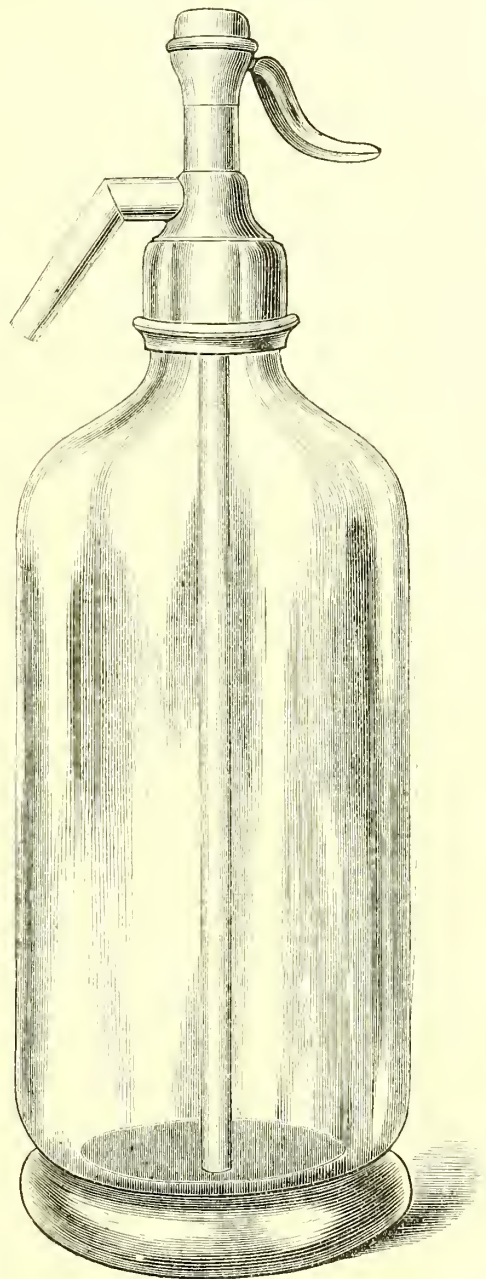
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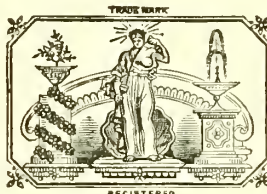
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YORKSHIRE RELISH.

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & Co. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.

Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2s., and 6s. Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1s. 1½d. and 2s. 3d. each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes 6d. and 1s. each.

Goodall's Ginger Beer Powder

Makes Three Gallons of the Best Ginger Beer in the World for 3d.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. Sold in Packets, 3d. and 6d. each.

Goodall's Blanc Mâché Powder

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-mâché may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One penny packet will go as far as four eggs; and one sixpenny tin as far as twenty-eight. In 1d. Packets; 6d. and 1s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO., White Horse Street, Leeds.

A Monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had post free on application.

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, the National Provincial Bank of England.

THE WELL-KNOWN "LONDON TEAS"

ARE ONLY SUPPLIED WHOLESALE BY

THE GREAT TOWER ST. TEA CO. (LIMITED).

Siftings from Fine Tea	for Retail at 1/4 per lb.
The London Whole-Leaf Tea	1/8 "
The London Broken Tea	1/8 "
The London Two-Shilling Tea	2/- "
The London Two-Shilling Indian Tea	2/- "
The London Assam Broken Tea	2/8 "

AND OTHER FINER BLENDS.

Order a small Sample Parcel. The Quality never deteriorates.

A. HORATIO JONES, Managing Director.

The Great Tower Street Tea Co. (Limited), 39 Great Tower Street, London. E.C.

KANGRA VALLEY

Indian Tea Growers' Association,

7 NEW COVENTRY STREET,

LEICESTER SQUARE, W.

PROSPECTUS.

The object of the Planters who have formed this Association, is to establish a business for the direct supply of Tea from the Plantations of the Kangra Valley to the public.

So great a success has attended the efforts of the promoters of the Association that it has become necessary that one of the Planters should reside in England to manage its affairs.

The distinctive feature of the business of this Association is that the Tea is delivered to consumers in the original One Pound tin-foil lined parcels in which it is packed in the Valley, and it is guaranteed to be absolutely pure.

The Association hopes that it may, without presumption, safely recommend this Tea to the public, believing that it will continue to give the greatest satisfaction.

Vide Allen's Indian Mail, Feb. 28, 1883:— "We can speak from actual knowledge of the excellence of the Teas of the 'Kangra Valley Indian Tea Growers' Association,' and as in advertising them we are also benefiting those who take advantage of their enterprise, we append their modest prospectus, which promises no more than they are well able to perform."

These Teas, retailing respectively at 4/3, and 2/6, can be purchased in any quantity, either direct from the Store, 7 New Coventry Street, or from Messrs. Barclay & Sons, 95 Farringdon Street, Agents to the Association.

Special Terms granted to all Chemists and Druggists, to whom the Teas, on account of their absolute purity, are particularly recommended.



HOGES HOREHOUND HONEY

The safest and most efficacious remedy ever discovered for all pulmonary diseases, sore or congested lungs, consumption, coughs, colds, sore throats, hoarseness, &c. An uncompounded product of Nature secreted in the petals of Horehound blossoms, and gathered by the honey bee.

London, March 30, 1883.

Gentlemen,—I have much pleasure in stating that I consider your Hoge's Horehound Honey the most wonderful remedy I have ever tried, possessing properties which are nothing short of marvellous, for the cure of affections of the throat and chest.

(Signed) MARIE RÔZE.

7 Suffolk Lane, London, E.C., April 20, 1883.

I never found any remedy to relieve the irritation of my throat until I tried your Hoge's Horehound Honey, which had a wonderful soothing effect and gave relief at once.

(Signed) G. F. BLACK.

16 Gloucester Road, Finsbury Park, April 28, 1883.

Your Hoge's Horehound Honey was very effectual in relieving and ultimately curing my daughter's cough.

(Signed) J. W. BAGLEY.

Mincing Lane, London, April 27.

Your Hoge's Horehound Honey was used with great success in my family.

(Signed) H. RUBECK.

Langham Hotel, April 28.

I find immediate relief of my throat and chest when troubled with an irritating and hacking cough by using your Hoge's Horehound Honey.

(Signed) J. C. MILLER.

47 Arlington Street, Islington.

I was troubled for a long time with a bad cough, which I found was becoming chronic. I used your Hoge's Horehound Honey, and gave it a fair trial. I am happy to be able to tell you that it quite relieved me, and I recommend it as a certain cure.

(Signed) G. M. SMYTH.

2 Moorgate Street, London, April 30.

I have your small bottle of Hoge's Horehound Honey, which I have tried, and find it excellent. I should be glad if you would send me a larger bottle to my house, The Poplars, Herne Hill.

(Signed) D. CHADWICK.

Put up only in Bottles to sell at 1s. 1½d. each. Price to Chemists 8s. 6d. per dozen. 1000 Handbills sent with each gross ordered.

To any Chemist who sells 12 gross within 12 months 1 gross will be given as a bonus.

Supplied by Messrs. Burgoyne, Burbidges, Cyriax & Farries; Messrs. Barclay & Sons; Maw, Son & Thompson; W. Edwards & Son; F. Newbery & Sons; Sanger & Co.; R. Hovenden & Sons; Alexander & Co., Dublin; or any Wholesale Druggist. Also of the Proprietors—

WM. HOGES & CO., LECONFIELD ROAD, **LONDON, N.**
OWNERS OF THE ONLY HOREHOUND APIARY.

NELSON'S EXTRACT OF MEAT.

CHEAPEST IN THE WORLD.—HALF THE PRICE OF LIEBIG.

OUNCE PACKETS, 4d. EACH.

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their SOLE ADDRESS, No. 11
LITTLE STANHOPE STREET, MAY-
FAIR, W, and caution the trade to

BEWARE of IMITATIONS.



"RAMORNIE," LIEBIG'S EXTRACT OF MEAT.

REDUCED PRICES!!!

7-lb. Tins	.....	per lb.	5/11	.....	each	41/5
1-lb. Jars	.....	"	6/2	.....	per doz.	74/0
4-lb. Jars	.....	"	6/4	.....	"	38/0
4-oz. Jars	.....	"	6/7	.....	"	19/9
2-oz. Jars	.....	"	7/0	.....	"	10/6
1-oz. Jars	.....	"	7/8	.....	"	5/9

Write for Detailed Price List to the Australian Meat Co., 9 & 11 Fenchurch Avenue, E.C.

10 lbs. Carriage Free.

KREOCHYLE BARFF AND WIRE. LIQUID MEAT.

SPECIALTY FOR INVALIDS.

To be obtained of Messrs. BARCLAY & SON, Farringdon Street, Messrs. ROUSE & CO., Wigmore Street, Messrs. BURGONE, BURLINGES & CO., Coleman Street, Messrs. NEWBERRY & SON, King Edward Street, of all principal Chemists, and of "THE KREOCHYLE COMPANY," BIRKBECK ROAD, LEYTONSTONE, E.

Prices—Retail, 5s. per pint; 2s. 9d. per half pint; 1s. 6d. per quarter pint.

E. LAZENBY & SON (6 EDWARDS STREET, PORTMAN SQUARE.) Sole Proprietors of the Celebrated Receipts and Manufacturers of the Pickles, Sauces and Condiments so long and favourably distinguished by their name, beg to remind the public that their labels are affixed to the choicest description of goods only, that every article prepared by them is guaranteed as entirely unadulterated and may be obtained of Grocers, Italian Warehousemen and others.

HARVEY'S SAUCE.—CAUTION.—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle bears the well-known label signed "ELIZABETH LAZENBY"; this label is protected by perpetual injunction in Chancery of the 9th July 1858 and without it none can be genuine.

18 TRINITY STREET, LONDON. S.E.

Elizabeth Lazenby

FAC-SIMILE of Label placed on each Twenty-pound Can of Greenbank Pure Caustic Potash, measuring 7 by 8½ inches.

PRICE 12s. 2d. PER CAN.



PURE CAUSTIC POTASH,

A SPECIALTY FOR MAKING THE FINEST POSSIBLE WOOL SCOURING SOAP.

**THE CONTENTS OF THIS CAN WILL MAKE
ONE HUNDRED & TWENTY POUNDS OF THE BEST POTASH
FLEECE WASHING & SHEEP DIPPING SOAP!**

Without any Boiling or Special Apparatus!!

**SIMPLY REQUIRES DISSOLVING IN TWO GALLONS OF WATER, AND
MIXING WITH EIGHTY POUNDS TALLOW, GREASE OR OIL!!!**

Mixed with Carbolic Acid makes the best and cheapest Sheep Dip obtainable.

This Potash Soap washes as well with cold water as with hot!

ALWAYS SHOULD BE USED FOR WASHING FLANNELS.

FOR DIRECTIONS SEE OTHER END



Greenbank Alkali Works Co., St. Helens, Lancashire, England, Manufacturing Chemists.
SPECIALTIES.—Pure Chlorate of Potash, Double Refined 98 per cent. Caustic Soda, Pure Caustic Potash, and Refined Pearlashes.

FAC-SIMILE of Directions for Use placed on each Twenty-pound Can of Greenbank Pure Caustic Potash.

PRICE 12s. 2d. PER CAN.

Packed for Export in Cases containing One Dozen Twenty Pound Cans

POTASH WOOL-WASHING SOAP.

Break up the contents of this TWENTY-POUND Can of GREENBANK Pure Caustic Potash by striking outside the Can with a hammer. Then open the Can and empty the contents into any earthenware or iron vessel, with exactly TWO GALLONS of water. Stir, and it dissolves almost immediately, heating the water. Let it cool until warm to the hand—say about 90 F. Melt EIGHTY POUNDS Tallow or Grease, which must be free from salt. Let it cool until fairly hot to the hand—say 130 F. Now pour the Caustic Potash Lye into the melted tallow, stirring with a flat wooden stirrer, about three inches broad, until both are thoroughly mixed and smooth in appearance. This mixing may be done in the boiler used to melt the tallow, or in a tub, or half an oil-barrel makes a good mixing vessel. Now pour the mixture into any square wooden box for a mould, previously lining with wet calico to prevent the soap sticking. Wrap up well with blankets or sheepskins, and put away for a week in a warm place, during which time the mixture slowly turns into soap. The box will then contain ONE HUNDRED and TWENTY POUNDS of the finest real Potash Soap, far superior to any Soda Soap for fleece scouring, washing sheep, and cleansing flannels; besides WASHING AND LATHERING AS WELL WITH COLD WATER AS WITH HOT. Forty pounds of this pure potash soap, with one gallon of genuine carbolic acid added, dissolved in ten gallons of water, make the finest possible sheep dip, perfectly harmless and non-poisonous—sufficient, when added to one hundred gallons of COLD WATER, for dipping at least two hundred sheep, at a cost of one halfpenny per head!

Send for Pamphlet, "New Methods of Wool-washing, Fleece Scouring, and Cleansing," reprinted from articles printed in Australia, and New Zealand Gazette, and containing much further information.

Also makers of DOUBLE REFINED POWDER 98%. CAUSTIC SODA, put up in ten-pound cans. Makes the finest hard soap without boiling. Instantly softens water. Removes old paint, also grease from knives, forks, axles, &c. Much more concentrated and economical than Soda Crystals.

REFINED PEARLASHES—Put up in ten pound cans; for washing flannels, bleaching linens, &c.

GREENBANK ALKALI WORKS CO.,
ST. HELENS,
ENGLAND.

For making the finest Wool Scouring and Sheep Washing Soap, or Sheep Dip, this Caustic Potash cannot be excelled.

Orders from abroad accompanied by remittance, or satisfactory reference, promptly executed. Trade discount to dealers ordering in quantity. Correspondence solicited.

SUPPLEMENT TO THE CHEMIST AND DRUGGIST.—JULY 14 1883.

C-SIMPLE of Label placed on each Ten-pound Can of Greenbank's Double Refined Powdered 98 per cent. Caustic Soda, measuring 7 by 7½ inches

PRICE 5s. 6d. PER CAN.



DOUBLE REFINED POWDERED
98 PER CENT.
CAUSTIC SODA.

THE CONTENTS OF THIS CAN WILL MAKE
ONE HUNDRED & TWENTY POUNDS OF THE FINEST HARD SOAP!

Without any Boiling or Special Apparatus!!

SIMPLY REQUIRES DISSOLVING IN FOUR GALLONS OF WATER, AND
MIXING WITH SEVENTY POUNDS TALLOW, GREASE OR OIL!!!

INSTANTLY SOFTENS WATER!

By far the most concentrated form of Soda obtainable, therefore,
the most economical.

FOR DIRECTIONS SEE OTHER END



Greenbank Alkali Works Co., St. Helens, England. Largest makers in the world of
the Chlorate of Potash, large crystals or extra fine powdered. One hundredweight
5s. 5½d. per pound. Air-tight canisters, each holding ten pounds, 8d per pound,
or 6d. canister.

FAC-SIMILE of Directions for Use, placed on each Ten-pound Can of Greenbank Double Refined Powdered Caustic Soda.

PRICE 5s. 6d. PER CAN.

Packed for Export in Cases each containing Two Dozen Ten-pound Cans.

BEST HARD SOAP.

Empty the contents of this **TEN-POUND Can** of **GREENBANK** Double Concentrated 98 per cent. Caustic Soda into any earthenware or iron vessel, with exactly **FOUR GALLONS** of Water. Stir and it dissolves instantly, heating the water; let it cool till just warm to the hand, say 80 F. Melt **SEVENTY POUNDS** of Tallow, Grease, or Lard, **WHICH MUST BE FREE FROM SALT**; let it cool until fairly warm to the hand, say 120 F. Now pour the Caustic Soda lye into the melted tallow, stirring with a flat wooden stirrer about three inches broad until both are thoroughly mixed and smooth in appearance. This mixing may be done in the boiler used to melt the tallow, or in a tub, or half an oil-barrel makes a good mixing vessel. Now pour the mixture into any square wooden box for a mould, previously lining with wet calico to prevent the soap sticking. Wrap up well with blankets or sheep skins, and put away for three days in a warm place, during which time the mixture slowly turns into soap. The box will contain **ONE HUNDRED and TWENTY POUNDS** of Hard Soap, which should be cut up with a wire or string into bars, and kept for at least a month before use. Keeping makes the soap hard, improves the quality, and also causes it to lather more freely. Follow the directions closely, take exactly the quantities given, and you will have a soap of the finest quality, far cheaper than anything you can buy, and made without any trouble.

FOR SOFTENING WATER.—Half a teaspoonful to the gallon will make the hardest water instantly soft.

FOR REMOVING OLD PAINT.—One pound to the gallon of water, put on with a scrubbing brush, and left to soak for half an hour. Two or three applications will remove the oldest paint.

FOR WASHING GREASY DISHES, KNIVES AND FORKS, AXLES, &c.—Two ounces to the gallon of water. Far better for these purposes than Soda Crystals.

The contents of this Can of **CONCENTRATED SODA** is guaranteed equal to **ONE HUNDRED and TWENTY POUNDS** of Soda Crystals for any washing or cleansing purposes.

Also makers of **PURE CAUSTIC POTASH.**—Put up in twenty-pound cans. Makes the finest Wool Washing Soap, and cold water Soap for washing flannels.

REFINED PEARLASHES.—Put up in ten-pound cans. For washing

GREENBANK ALKALI WORKS CO.,
ST. HELENS,
ENGLAND.

For softening water, making hard soap, and preventing all scale in steam boilers, this Double Refined Powdered Caustic Soda has no equal! The most concentrated form of Soda obtainable, therefore for all purposes the most economical!!

NESTLE'S MILK FOOD.

THE
"PERFECT FOOD FOR INFANTS."

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine-fed cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food for infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet. Nestle's is the original and genuine Milk Food or Powder. The extensive demand for this Food, its well-known superiority and universal recognition by the medical profession, has produced the inevitable imitations. The Trade and the Public are hereby cautioned. Nestle's Milk Food has stood the test of years. Take no other under any pretence whatever.



NESTLE'S MILK FOOD is put up in Tins, packed in lined cases when ordered specially for the Export Trade. Is highly concentrated, and in a perfectly dry state. Will keep good in any climate.


For exportation the Food is a very desirable article, and is much sought after among people of all nationalities in all parts of the globe. Its advantage as an article for export consists in

Its uniform quality. Its purity. The simplicity of its preparation for use.

Its freshness in warm climates, where cow's milk soon becomes tainted.

Foreign and Colonial Importers should obtain their supplies through any Wholesale Firm in Great Britain, or Shipping Agent, thus ensuring fresh stock and lowest prices.

LONDON DEPOT: 9 SNOW HILL, E.C.

 **SEVEN INJUNCTIONS** have been granted during the past few months.

 **CAUTION! "YORKSHIRE RELISH."** 

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to the use of which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,

12 KING STREET, CHEAPSIDE, LONDON,

Solicitor to the Trade Mark Protection Society.

FRY'S MALTED COCOA

(PATENTED).

A Combination of FRY'S Pure COCOA EXTRACT with

ALLEN & HANBURYS' CONCENTRATED EXTRACT OF MALT

J. S. FRY & SONS, BRISTOL AND LONDON.

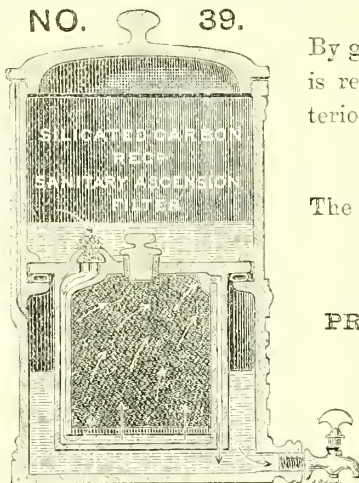
SILICATED CARBON REGD. SANITARY ASCENSION FILTER.

First and Highest Award at the International Medical & Sanitary Exhibition, South Kensington.

An ASCENSION FILTER, all parts of which are accessible for cleansing, and in which the Silicated Carbon can be renewed by the purchaser when required.

The water is trapped of the grosser impurities before reaching the Silicated Carbon, through which it passes *upwards* in the direction shown by the arrows.

NO. 39.



By giving a half turn the inner vessel is released and the whole of the interior of the Filter is then accessible for cleansing.

The Silicated Carbon can be renewed as often as necessary.

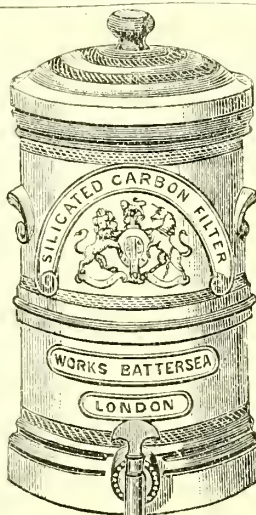
PRICE COMPLETE:

No. A, 1 gallon	...	18s.
No. B, 2 gallons	...	26s.
No. C, 4 gallons	...	38s.

DOMESTIC

Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

All sizes of this pattern can now be had with Ice Compartment, which renders this Filter the most perfect of Refrigerators.



FILTER, NO. 27.

PRICES.

				With Ice Compartment.
No. O, capacity $\frac{1}{2}$ gallon		10s. 6d.		
No. A, " 1 "		14s. 6d.	...	17s. 6d.
No. B, " 2 "		21s. 0d.	...	25s. 0d.
No. C, " 4 "		32s. 0d.	...	36s. 0d.
No. D, " 6 "		42s. 0d.	...	48s. 0d.
No. E, " 8 "		52s. 0d.	...	60s. 0d.
No. F, " 12 "		70s. 0d.	...	80s. 0d.

MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR
Mansions, Schools, Hospitals, Public
Institutions, Breweries, Distilleries,
Soda Water Manufactories,
Dye Works,

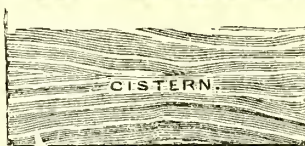
And all other Establishments where large quantities of

PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:—

A, $\frac{1}{2}$ -inch pipe	...	£6 6s.
B, 1-inch pipe	...	£9 9s.
C, $1\frac{1}{2}$ -inch pipe	...	£15 15s.
D, 2-inch pipe	...	£26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into
for Large Works, Institutions,
&c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.
Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the filter therein and drawing the water through a tube by suction.



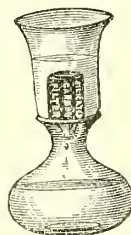
No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

- Each of these portable Filters may be
- Pocket Filter, 2½ inches diameter, in porcelain, with glass s. d. mouthpiece, in decorated metal box 2 6
 - Ditto, 3½ inches diameter, in best stoneware 5 0
 - Ditto, " " with silver-plated tap 7 0
 - Emigrant's, 5 inches diameter, with silver-plated tap 12 0
 - Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and Zululand, and to the Ashantee and Egyptian Expeditions 3 6
 - Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits 5 0

TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

- O, 2s. 6d.; A, 4s.; B, 5s. 6d.
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24.

- O, 2s. 6d.; A, 4s.; B, 5s. 6d.



DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.

- A 35s.
B 80s.
A, with Ice Compartment.. .. . 42s.
(New Patent.)
B, with Ice Compartment 100s.
(New Patent.)

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25.

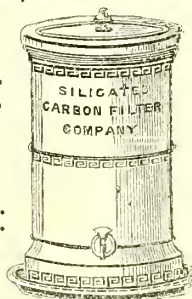
Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

affording a

COOL DRAUGHT OF PURE WATER.

- Price, with Silver-plated Tap 31s. 6d.
Ditto, ditto, with Ice Compartment.. .. . 42s. 0d.
Capacity Two Gallons.



Specially adapted for Tropical Climates.

SILICATED CARBON (Regd.) ASCENSION FILTERS.

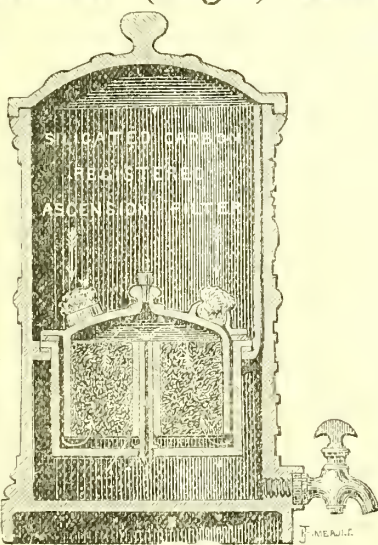
The most efficient known Filter

PRICES:

No. 38.

- 1 Pint, 2/6 ea.
2 " 4/-
3 " 5/8

The Water passes upwards through the Silicated Carbon in the direction shown by the Arrows in the Drawings.



NO. 37.

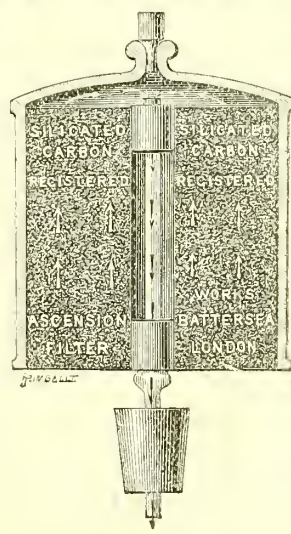
for Table and Domestic Use.

PRICES:

No. 37.

- 1 Gal., 18/- ea.
2 " 26/-
4 " 38/-

The inner blocks being movable, by attaching an india-rubber tube they can be converted into Pocket or Travelling Filters.



SECTION OF NO. 38.

WRITE FOR FULL LISTS TO THE

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

CONROY'S MALT COFFEE.



Conroy's Malt Coffee has received the following Certificates amongst many others.

"Undoubtedly a nourishing and health producing article of diet."—*Edward Davies, F.C.S., F.I.C., &c., Liverpool.*

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"Malt Coffee, the new temperance beverage, would seem to make the nearest approach to what is required. Pure malt is in its own way as beneficial as pure coffee, being especially strengthening and nutritious."—*Morning Post.*

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Pamphlets containing Testimonials from Eminent Scientific, Medical, and other Gentlemen of the highest position, may be had Free for Gratuitous Distribution.

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See pages 41 and 42.

SCOTT'S EMULSION

OF PURE COD LIVER OIL WITH HYPOPHOSPHITES OF LIME AND SODA

PERFECT—PERMANENT & PALATABLE.

We are now presenting this Preparation to the notice of the Medical Profession in Great Britain, with the belief that, upon a proper examination and test, they will find its virtues unequalled by any similar combination, and it will warrant their approval and endorsement.

The high favour it has met with in all the countries where it has been presented, has prompted us to introduce it in this country, and we believe Physicians will not be slow in responding to our efforts in its introduction.

Its PERMANENCY as an EMULSION, remaining indefinitely without separation or change; its PALATABLENESS, the disagreeable properties of the oil being so entirely disguised that the most delicate stomach can take and retain it; its perfect HOMOGENEOUSNESS, and the excellent results attending its use in all of the conditions for which its unexcelled components are useful, give it an enviable reputation, and the universal sanction of the Medical Profession.

We trust all Chemists will procure a small quantity of the Emulsion, or at least fill all orders they may receive for it. We herewith append the opinions of some of the prominent Physicians of London, which is certainly a guarantee of its especial virtues.

The BRITISH MEDICAL JOURNAL writes, July 7, 1883:—

"It is palatable, and we have no doubt that many patients who have a repugnance to ordinary Cod Liver Oil would take it without difficulty."

London: 32 Keppel Street, Russell Square.

DEAR SIR,—While practising in Canada I prescribed Scott's Emulsion of Cod Liver Oil extensively, with excellent results.

Yours truly,

W. F. CHAPPELL, M.B., M.R.C.S.E.

May 11, 1883.

56 Mile End Road, E.

DEAR SIR,— Your Emulsion has really been of great service to a little patient of mine who has suffered from bronchitis continually. Will you kindly send me one quarter dozen per return, and I will remit P.O. for amount.

P.S.—I find that children will take it very readily.

Yours faithfully,

FREDK. W. WILES, M.R.C.S., L.S.A.

London, April 27, 1883.

4 High Street, Bloomsbury, W.C.

DEAR SIR,— Respecting the Cod Liver Oil Emulsion, I beg to state that I find it an admirable preparation, very palatable, and of excellent therapeutic effect.—Faithfully yours,

ALFRED W. H. LEE, L.R.C.P.

London, April 18, 1883.

Junior Garrick Club, London, May 11, 1883.

MY DEAR SIR,—I am only a visitor here in London, and have had no opportunity of using the sample of Scott's Emulsion you so kindly sent me, but I have regularly prescribed it in America (San Francisco), and I generally found that patients derived great benefit from its continued use, and it was always tolerated much better than the ordinary Cod Liver Oil.

Yours faithfully,

F. W. HOOD, M.D.

55 Stephen's Green, E.

I have found "Scott's Emulsion with Hypophosphites" of great benefit in the treatment of phthisical and scrofulous diseases. It is extremely palatable, and does not upset the stomach, thus removing the great difficulty experienced in the administration of the plain oil.

D. P. KENNA, L.R.C.S.I.,

Surgeon St. Vincent's Hospital.

Dublin, April 5, 1883.

23 Cornhill, E.C., April 4, 1883.

DEAR SIR,—I have tried your "Scott's Emulsion" of Cod Liver Oil with Hypophosphites in a case of rickets (very young child), totally adverse to taking any kind of medicine. His nurse tells me he takes Scott's Emulsion without any difficulty, and even pleasure (sic). I certainly think he has derived considerable advantage from it myself.

Yours truly,

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FIG. 1.

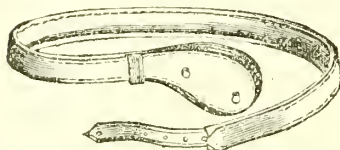


FIG. 4.

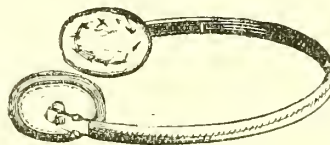
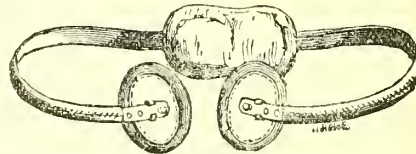


FIG. 5.



TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz. £1	1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
" " " " double, Fig. 5	"	3 0 0
Moc-Main Lever, single	each	0 8 0
" " " " double	"	0 13 6
Coles's Expired Patent, single	"	0 6 0
" " " " double	"	0 12 0
Scrotal Trusses, basil and chamois or moleskin, single	"	0 4 0
" " " " " double	"	0 7 0

SUSPENSORY BANDAGES.

No. 1. Cotton Bags and tape under-straps	per doz. £1	8 0
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3. Silk Bags and tape under-straps	"	1 1 0
4. Silk Oxonian, with drawing-strings	"	0 18 0
5. Silk Oxonian Bags bound with elastic	per doz.	1 4 0

SUSPENSORY BANDAGES—continued.

No. 6. Silk Oxonian, superior quality, bands of buff jean, with drawing-strings	per doz. £1	4 0
7. Silk Bags, to button on, with tape under-straps	"	1 1 0
8. " " " " " under-straps to button	"	1 4 0

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Calf-pieces	0 7 6	0 10 0	0 4 6	0 6 0
Socks	0 5 6	0 8 6	0 3 10	0 5 0
Wristbands	0 2 3	—	0 1 8	0 2 0
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MEAL, AND CRUSHED LINSEED.

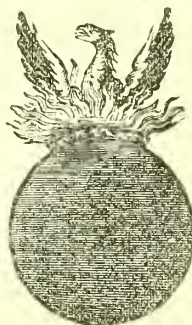
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OIL REFINERS AND DRYSALTERS.



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For full Notes and Reports see front pages of THE LANCET, March 31st.

KEPLER EXTRACT OF MALT.

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For full Notes and Reports see front pages of THE LANCET, March 31st.

McK. & R. CAPSULED PILLS.

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For full Notes and Reports see front pages of THE LANCET, March 31st.

KEPLER COD-LIVER OIL WITH EXTRACT OF MALT.

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So combined, the oil is subdivided into minute particles, which can be seen under the microscope to be as fine as the granules of milk, and so much finer than any that can be obtained by any emulsion with gums. On the fineness of the emulsion depends the digestibility of the oil. "The digestive change undergone by fatty matters in the small intestine consists mainly in their reduction into a state of emulsion, or division into infinitely minute particles."

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For full Notes and Reports see front pages of THE LANCET, March 31st.

LAWTON'S ABSORBENT COTTON

Has been pronounced by some of our most eminent surgeons the very best absorbent for taking up discharges; it is very fine and soft, and acts instantly."—THE MEDICAL PRESS AND CIRCULAR.

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THE WYETH COMPRESSED TABLETS



"Are a great improvement on the hard, unpalatable lozenges which have so long done duty in the Pharmacopœia. The Chlorate of Potash and Chlorate of Potash and Borax will be found useful in throat affections, whilst the Bicarbonate of Potash and Bicarbonate of Soda Tablets will prove efficacious in dyspepsia. The Soda Mint, or Neutralising Tablets, will earn the gratitude of many a flatulent dyspeptic."—THE LANCET.

For full Notes and Reports see front pages of THE LANCET, March 31st.

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THE MEDICAL PRESS AND CIRCULAR reports:—"Hazeline is a valuable astringent remedy, wonderfully efficacious in checking internal or external hæmorrhages, and for allaying inflammation. It is particularly valuable in the treatment of bleeding piles, and as a surgical dressing it deserves attention."

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THE WYETH SOLUBLE COMPRESSED HYPODERMIC TABLETS.

The following formulæ and combinations embrace all those in general request. Others will be added as the demands of the profession warrant.

We claim for the Wyeth Hypodermic Tablets:

ABSOLUTE ACCURACY OF DOSE.

READY AND ENTIRE SOLUBILITY.

PERFECT PRESERVATION OF THE DRUG.

Their convenience and utility will at once be apparent on examination.

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Morphiæ Sulphas ..	1-4 grain.	Atropiæ Sulphas ..	1-200 grain.
Morphiæ Sulphas ..	1-6 grain.	Morphiæ Sulphas ..	1-12 grain.
Morphiæ Sulphas ..	1-8 grain.	Atropiæ Sulphas ..	1-250 grain.
Morphiæ Sulphas ..	1-12 grain.	Atropiæ Sulphas ..	1-60 grain.
Morphiæ Sulphas ..	1-3 grain.	Atropiæ Sulphas ..	1-100 grain.
Atropiæ Sulphas ..	1-120 grain.	Atropiæ Sulphas ..	1-150 grain.
Morphiæ Sulphas ..	1-4 grain.	Strychniæ Sulphas ..	1-60 grain.
Atropiæ Sulphas ..	1-150 grain.	Strychniæ Sulphas ..	1-100 grain.
Morphiæ Sulphas ..	1-6 grain.	Strychniæ Sulphas ..	1-150 grain.
Atropiæ Sulphas ..	1-180 grain.		

For full Notes and Reports see front pages of THE LANCET, March 31st.

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1. It is easily administered, the dose being very small.
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In ordering please specify Fer. Wyeth 3 oz. with Dropper.

NOTE.

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The NEW-SHAPED TERRA-COTTA JARS are used which we introduced two years ago. Price in original 1-cwt. casks, 100s. cwt.—casks free.

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PANCREATIC EMULSION presents to the Lactals fat in exactly the same condition for assimilation and absorption as in the vigorous human frame, and the agent of the important change is the natural secretion of the Pancreas. Dose, 1 to 3 drachms, stirred little by little in milk, water, or any suitable vehicle.

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"Most powerful Preparations in the form of mother liquors," of pleasant odour and taste.

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A perfectly tasteless preparation, specially adapted for the peptonisation of milk, arrowroot, and other mucilaginous articles of diet in general use in the sick-room.

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The most powerful agent for the digestion of Fat and Farinaceous Foods.

These Preparations are reliable and concentrated forms adapted for all the purposes for which Pancreatine and Pepsine are administered.

Dose, 1 drachm. (See *British Medical Journal*, Dec. 13, 1879, p. 965, &c.)

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The most powerful agent for the digestion of Meat, Milk, Eggs, &c.
May be taken with Food as a Sauce or Ketchup.

PEPSINE ELIXIR (Acid Glycerole of Pepsine)

A convenient solution for mixture with other remedies, Iron, Bismuth, &c., its syrupy nature rendering it easily miscible with other syrups and aqueous fluids.

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These Preparations are obtainable in 4, 8, and 16 oz. Bottles, or any quantity required, of all Wholesale and Retail Chemists, &c.

NUTRITIVE, OR MIXED PEPTONE ENEMA (Enema Peptonicum, Savory),

Consisting of mixed Peptonized Foods for Injection per Rectum, thus supplementing and relieving the Digestive Organs. Prepared at the suggestion of A. E. SANSOM, Esq., M.D., &c. Each Bottle contains two small or one full dose. [3]

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the Pharmaceutical Society of Queensland.

the Pharmaceutical Society of New Zealand.

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PUBLISHER'S NOTICE.

EDUCATIONAL NUMBER.

Our next issue, September 15, will contain special information concerning how to acquire the training necessary for entering the professions of pharmacy, medicine, and chemistry. Copies of that issue will be sent to all medical schools and technical colleges, and this number will be especially valuable to intending students. It therefore offers an excellent opportunity to publishers of educational works, or makers of students' appliances, for bringing their announcements before their chief customers.

An important prosecution by the Apothecaries Society was tried at the Southwark County Court on August 3. The defendant was a chemist and druggist, keeping a shop in Sanford Street. Evidence was given by three women that the defendant had come to their houses and examined their children, and by a physician, who had subsequently been called to see each of the children. The defendant gave evidence that he was a chemist and druggist, a registered chemist, perpetual student of medicine, public vaccinator,

and certified to attend cases of midwifery, while a school of chemistry and pharmacy was carried on at his premises. He had been asked for medicine for measles in one of the cases in evidence, did not remember the second, and had only given medicines for the effects of vaccination in the third. As many as thirty doctors sometimes came to his place in one day, but he had no arrangements with them. A licentiate of the Faculty of Physicians and Surgeons, Glasgow, had visited cases at defendant's request. His Honour said he must hold that defendant had acted as an apothecary, and gave judgment for plaintiffs with costs.

Our first editorial article gives a summary of the points which ought to be discussed by the Pharmacopœia Revision Committee. This will be found very suggestive, and we trust our readers will follow up the questions raised.

An interesting letter from Mr. Daniel Frazer in our correspondence columns introduces some remarks made on the Pharmacy Act Amendment Bill by an able Glasgow lawyer. While the whole Bill needs revision by the draughtsman, a distinction is drawn between the seller in a shop and the keeper of a shop, which may lead to unexpected results.

We publish this month a special list of the awards to British exhibitors in the chemical section of the Amsterdam Exhibition. Our special correspondent furnishes us with a report of the opening of the Vienna International Pharmaceutical Exhibition, and a short account of the most prominent exhibits.

The annual meeting of the British Medical Association passed off with satisfaction to all concerned. More than a thousand members were present. The exhibition was well supported by local and other well-known firms, and was one of the most interesting of the series. The pharmaceutical exhibitors were entertained at dinner by Messrs. Evans, Son & Co. at the time when the doctors were feasting together.

The British Pharmaceutical Conference will be held at Southport, on September 18 and 19, while its elder sister, the British Association, will be meeting in the New Dominion. Several gentlemen have already promised papers, and Dr. Attfield's presidential address will be on the Relations of the State to Pharmacy. The local committee are striving vigorously to make the three days at their disposal interesting and enjoyable to all concerned. Southport is remarkable for its rapid growth in modern years. The population was about 14,000 in 1867 and is about 35,000 now.

Our Montreal correspondent makes some useful remarks on the prospects of English assistants who emigrate to Canada. All should take with them good credentials, and be prepared to adapt themselves at once to their changed surroundings.

A chemical section, with a committee of thirty-seven well-known gentlemen, has been formed by the London Chamber of Commerce. The first object of the section is to promote the adoption of a uniform system of chemical analyses.

Messrs. Robbins & Co. have published a reply to the statements of French authorities that bichloride of methylene, supposed to be of their manufacture, was a mixture of chloroform and alcohol. They repudiate the accusation, and give some details of their method of manufacture.

A druggist at Aberdeen, being sued for damages for the loss of a husband, compromised the case by payment of 4 0/. He had supplied some powders of sodium salicylate, which were afterwards found to contain 50 per cent. of morphia hydrochlorate.

Pharmacalia.

CURIOUS CASE OF CONTAMINATED WATER-SUPPLY.

Mr. CHARLES B. FLETCHER, of Boston, has communicated for the benefit of English analysts an examination of a peculiar condition which occurred in some American water-supplies.

The alarming state of the public water-supply in his own city caused both anxiety and serious apprehension. Chemical analysis failed to discover the origin of a bad flavour which produced illness and disgust.

An immense amount of capital had been spent upon the works, and yet a similar flavour had been noticed during several years, for a short period and in less degree. In the winter of 1881-82 the Boston supply was unfit for domestic use.

The water was now carefully examined, and a report was made to a leading society of physicians.

The only thing noticed was the higher percentage of albuminoid ammonia than that previously determined. A low form of vegetable, or perhaps animal, growth was suspected, and the Commissioners, aroused by the public cry, were compelled to order an investigation.

Heat, it was found, intensified the bad flavour, and the odour, which was slight when the water was cold, was developed by the same means. Samples having been taken, filtered and unfiltered, two things were made out: First, that there was considerably more nitrogenous matter in suspension at the effluent gate-house of the storage-basin than at the influent gate-house. Secondly, that there was not much difference in the amount of such matter in solution in the two specimens. The waters underwent a gradual change on standing. This consisted in a further oxidation of the nitrogenous matter, leading to an increase in the amount of free ammonia, and to destruction of the material which imparted the taste and odour to the water. Chemical analysis confirmed the connection which existed between albuminoid ammonia and repulsive flavour. Was the obnoxious substance causing these results at the bottom of the lake or not? The mud, when first filtered from the water, had no odour, neither had the water a bad taste. Did the taste come from something situated on some other part of the bottom, or might it be developed by contact of the mud and bottom-water with air? A thin layer of the mud on a filter-paper gave in half an hour the same odour, which increased for a time and then disappeared.

A microscopic examination revealed plants belonging to the Nostoc family in quantity. Spicules of a sponge were also noticed, and further examination detected its presence in abundance. A series of experiments determined that the odour might be traced to this fresh-water sponge. It is the *Spongilla glauclitidis*, Anct.; it is common in some localities; easily decomposes, and, when so decomposed, gives out a very strong odour. By drawing off the water from one basin, large masses of the sponge were found growing on rocks, from which it was readily detached. Water so contaminated will not immediately reveal the odour on filtration, even though heated: time is essential. As soon as the cause was known, the remedy was applied, and confidence was restored both in the once vitiated supply and in the value of chemical analysis governed by common sense. In these, and in many other cases, the microscope and chemistry must work together, and attendant circumstances must be taken into consideration.

The communication is deemed by the author to be important, as the water-supply of other large cities may be similarly affected.

THE ADVANCE OF PHARMACISTS.

Speaking as a pharmacist, not as an individual, there is no month so barren of interest as that of August. The schools are closed, and with them the libraries; the learned societies have shut their doors; paint and whitewash usurp the halls of science, and London is a deserted village. Even the hard-working chemist has fled from his daily toil, and the poor journalist has nothing to recount. In the supposed good old times, a fortnight's rest every other year represented the chemist's holiday; there were no Thursday evenings, and Sir John Lubbock's four annual days of grace had not been inaugurated. Things pharmaceutical have changed vastly for the better during the past forty years, and we doubt much if trade interests have suffered.

The secret of this continued prosperity lies in the distinct personal advance made by so many younger pharmacists in pure chemical knowledge, and this, we think, is the characteristic feature of modern British pharmacy. Certain changes which were inevitable have ensued. The prestige of historic houses has diminished, and no establishment can afford to trade only on its reputation. Many once second-class retail pharmacies have risen into importance, and the general position of the community of druggists has undoubtedly been improved.

But for this, there was no small danger that the stores, with their great business developments, would have swept away the trade. We hold, as an article of faith, that eventually the power of co-operation to inflict injury will be checkmated by the reputation gained by the proprietors of each separate concern.

That which has saved the financial situation will in turn raise the social. It has done so already, though to a limited extent; and from this we would point an obvious moral. Let us trust more to ourselves and less to legislation for our future welfare. Personal acquirements must precede public recognition; and from experience we may philosophise upon the subject in the most hopeful manner.

The Pharmaceutical Council.

THE monthly meeting of the Council was held on August 1. The attendance was rather less than usual. Messrs. Bottle, Gostling, Squire, Symes, Woolley, and Young being absent. Mr. Carteighe, president, was in the chair.

After the election of members, &c.,

The REGISTRAR reported that—

FitzWilliam Bennett Townley, 2 Commercial Place, Landport,

having made a statutory declaration that he was in business before the passing of the Pharmacy Act, 1868, and this declaration having been duly supported by a qualified person, his name had been placed on the register.

INVESTMENTS.

The Finance Committee recommended that they should be authorised to sell out a sufficient amount of stock to complete the purchase of freehold ground-rents at Paddington Green, Strawberry Hill, and Wimbledon, which purchases had been already sanctioned by the Council. This was agreed to after explanations had been given by the President in committee.

BENEVOLENCE.

Five grants of 10*l.* each, and one of 5*l.* were agreed to. The Secretary reported that a grant of 20 guineas to aid the election of an orphan to an institution had been expended successfully. Mr. SAVAGE mentioned the case of the Isherwood orphans, stating that the girl was very comfortably domiciled, and also that it was hoped some kindhearted person would be willing to take the boy, who was now between thirteen and fourteen, intelligent, but in rather

delicate health. The Secretary read a letter from a widow, who, since 1877, had received three grants of 15*l.* each, saying she was no longer in need of assistance, and enclosing 5*s.* as a small contribution to the fund.

LIBRARY AND MUSEUM.

The reports from these departments contained the usual details. For the museum some new cases were ordered, for which Mr. Howlett's estimate of 221*l.* 5*s.* was accepted. The resignation of Mr. Elborne, assistant curator, who had obtained the appointment of assistant lecturer at Owens College, was accepted.

THE EDUCATIONAL PRIZES.

The professors of the School of Pharmacy had sent in their reports, and recommended the following awards:—

Chemistry and Pharmacy.

(Five months' course.)

Bronze Medal	Lewis Walter Hawkins
Certificates of Merit	{ John Chinery Wiggin Ernest James Reynolds John Rodman Mowatt

(Ten months' course.)

Silver Medal	David Rees
Certificates of Honour	{ Francis Ransom Edward Bailly David Low
Certificates of Merit	{ Charles Ranken William Edward Crow Thos. Southall Dymond

Botany and Materia Medica.

(Five months' course.)

Bronze Medal	John Chinery Wiggin
Certificate of Merit	Ernest James Reynolds

(Ten months' course.)

Silver Medal	Edward Bailly
Certificates of Honour	{ Francis Ransom William Edward Crow William Lloyd Williams Equal { Charles Ranken David Low
Certificates of Merit	{ Edward Ernest Sewell Thos. Southall Dymond William Johnston Arthur Pumphrey John Chinery Wiggin

Practical Chemistry.

Silver Medal	William Edward Crow
Bronze Medals	{ Thos. Southall Dymond David Rees
Certificates of Honour	{ Charles Ranken John Chinery Wiggin William Lloyd Williams Bernard Keene
Certificates of Merit	{ Edward Bailly Francis Ransom David Low Edward Marsh James Burden Barnes

Herbarium Prize.

Bronze Medal	Thomas Stephenson
Certificate of Merit	Frederick Miller

For the Council prizes Messrs. Plowman and Southall, who had conducted the examination, recommended the Society's silver medal and Mr. Hill's prize of books, value 3*l.*, to be awarded to William Lloyd Williams; and the bronze medal and books to the value of 2*l.*, presented by Mr. Hills, to Edward Bailly. There were thirteen competitors. None had obtained enough marks to be entitled to the Pereira medal. For the Bell Memorial Scholarships Messrs. Ekin and Taylor, the examiners, reported that twenty-five candidates had competed, namely, eight in London, two each at anterbury, Liverpool, and Manchester, and one each at Birmingham, Cambridge, Cardiff, Carnarvon, Darlington, Edinburgh, Exeter, Lincoln, Oxford, Sheffield, and Shrewsbury. Five had obtained more than the necessary minimum marks. The successful candidates were Fraser McDermid and R. W. C. Pierce.

THE EDUCATIONAL SCHEME.

Mr. SCHACHT suggested the early discussion of this matter (the curriculum, &c.), with a view of deciding whether action should be taken without waiting for the amended

Pharmacy Bill to pass. Mr. WILLIAMS, however, urged that it would be a waste of time to discuss such proceedings without first taking legal opinion as to the power of the Council to make such alterations. Mr. SCHACHT thought it would be more in order to resolve what should be done before they inquired if they had power. The PRESIDENT ruled that no resolution could be passed without notice having been given, and it was left for any member who should think fit to give notice of motion for the October meeting.

THE HANBURY MEDAL.

The report of the Presidents of the Linnæan, the Chemical, and the Pharmaceutical Societies, the Pharmaceutical Conference, and Mr. H. B. Brady, the pharmaceutical chemist appointed by the two last-named presidents, was received, recommending the award of the second Hanbury Gold Medal to Mr. John Eliot Howard, F.R.S., for distinguished excellence in the prosecution of original research in the natural history and chemistry of drugs.

THE ROYAL ARMS ON LABELS, &c.

The PRESIDENT reported an interview and some correspondence with Mr. Farrer, of the Board, in reference to the clause in the new Patents Bill forbidding the unauthorised use of the Royal Arms under a penalty of 20*l.* The clause appeared to have been introduced because certain patent agents used the Royal Arms, and in some cases persons had paid money under the impression they were paying it in a Government office. It had not occurred to the authorities that the clause would interfere with labels. With a letter the President had sent specimens of labels bearing the Royal Arms. The clause in the Bill as it stood ran as follows:—"Any person who, without due authority, assumes or uses in connection with any trade or business the Royal Arms, or any arms so nearly resembling the same as to be calculated to deceive, shall be liable, on a summary conviction, to a fine not exceeding 20*l.*"

On July 30 the Board of Trade had sent a letter enclosing draft of a proposed amendment of this, asking for the observations of the Society thereon. The new clause would read thus:—

"Any person who, without the authority of Her Majesty or any of the Royal Family, or of any Government department, assumes or uses in connection with any trade, business, calling, or profession the Royal Arms, or arms so nearly resembling the same as to be calculated to deceive, in such a manner, as to be calculated to lead other persons to believe that he is carrying on his trade, business, calling, or profession by or under such authority as aforesaid, shall be liable, on summary conviction, to a penalty not exceeding 20*l.*"

The subject was briefly discussed. Mr. SCHACHT thought all that was wanted was to be allowed fair time to use up labels in stock. Mr. GREENISH thought it would be better to withdraw the clause altogether, and Mr. WILLIAMS also considered it was an irritating piece of legislation which would do no good. Mr. HAMPSON alluded to the Royal Arms on specie-jars, and thought it desirable to know more of the intentions of the Government; but on the motion of Mr. ROBRINS, seconded by Mr. ANDREWS, it was agreed by eight votes to five that the President be instructed to reply to the Board of Trade to the effect that the clause as amended would be satisfactory to the Council.

VACATION.

It was arranged that, as usual, no quorum should be formed for the Council meeting in September.

THE EXAMINATIONS.

From the reports of the examinations in July it appeared that in England and Wales 28 Major candidates had submitted themselves and that 16 of these had passed; that for the Minor 156 had presented themselves, but that of these only 55 had passed; and that one candidate for the Modified examination had failed. In Scotland there had been two Major (one passed) and 30 Minor candidates (15 passed), and one candidate for the Modified had passed. For the Preliminary examination 451 candidates had been examined and 226 had passed.

Metropolitan Reports.

CRICKET.

MAW, SON & THOMPSON v. WRIGHT, LAYMAN & UMNEY.—This match was played at Nunhead on July 28, and resulted in a victory for Maw, Son & Thompson. Score:—

Wright, Layman & Umney.

C. F. Wright, b. Burringham	0
W. F. Umney, c. Howard, b. Harrison	17
H. C. Wright, b. Harrison	1
S. F. Wright, b. Harrison	0
O'Farrel, b. Harrison	0
J. C. Umney, run out	9
Layman, run out	0
Ford, run out	1
Rogers, b. Harrison	0
Whitehead, not out	3
King, b. Harrison	3
Extras	5
<hr/>	
	39

Maw, Son & Thompson.

Harrison, b. W. F. Umney	12
Frampton, run out	11
F. Pyne, b. W. F. Umney	5
H. Pyne, b. O'Farrel	10
Sexton, b. W. F. Umney	7
Burringham, b. W. F. Umney	7
Howard, b. W. F. Umney	12
Jones, b. W. F. Umney	8
Leng, st. O'Farrel, b. J. C. Umney	1
Brasnet, not out	8
Pengelly, run out	3
Extras	16
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	100

BURGOYNE, BURBIDGES & CO.'S CRICKET CLUB v. MAW, SON & THOMPSON.—Played at Nunhead, August 4.

Maw, Son & Thompson.

Dowell, b. Jordan	0
F. Pyn, c. and b. Fennimore	7
A. Pyne, b. Fennimore	5
Hoole, b. Jordan	0
Harrison, c. Pannell, b. Jordan	0
Burningham, b. Jordan	0
S. Frampton, not out	6
J. Frampton, b. Jordan	0
Green, b. Jordan	0
Brasnet, c. Pannell	1
Denman, b. Jordan	3
Extras	12
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	34

Burgoyne, Burbidges & Co.'s Cricket Club's.

T. Tate, b. Harrison	31
J. Fennimore, c. and b. Burningham	24
Jordan, not out	51
R. E. Taylor, b. Burningham	4
W. Pannell, b. Pyne	18
G. Ben, c. Burningham, b. Pyne	12
E. Reid, b. Hoole	2
J. Cornell, c. Pyne, b. Hoole	0
W. Stocker, not out	2
Extras	13
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	137

W. Boswell and Russell to bat.

On Saturday, July 28, Burgoyne, Burbidges & Co. v. Atlas Dye-works Cricket Club:—Atlas, 44; Burgoyne, Burbidges & Co., 218.

On July 21, Burgoyne, Burbidges & Co. v. Collard & Collard:—Collard & Collard, 29; Burgoyne, Burbidges & Co., 104.

FIRES.—In the early hours of July 17 a destructive fire broke out in the premises numbered 20, 21, 22, and 23 Artillery Lane, Bishopsgate. The building was one of five floors, 75 feet by 30 feet in dimensions, and occupied by three firms—Messrs. W. J. Bush & Co., wholesale chemists, who occupied the four upper floors; Messrs. J. Richardson & Co., fancy-soap makers, who held the ground-floor of No. 22;

and Messrs. J. Backhouse & Co., who carried on their business as hemp merchants on the ground-floor of No. 23. When the brigade from Bishopsgate arrived the fire had a strong hold on the upper floors of the premises, and although, under the direction of Captain Shaw, C.B., seven steamers and several standpipes and hydrants were got to work, the flames burnt through the roof. Several explosions of chemicals had taken place during the progress of the fire, but none of a serious character. The water did considerable damage to the lower floors of the premises, but the main damage was to the three upper storeys, which were virtually destroyed. The origin of the fire is not known.

LONDON CHAMBER OF COMMERCE; CHEMICAL TRADES SECTION.—Three meetings held last month have resulted in the formation of a special section of the London Chamber of Commerce devoted to the chemical trades. A committee of thirty-seven has been recommended to the General Council. Subjoined are the names:—Chairman, Howard, David, Esq.; deputy-chairman, Blott, John, Esq. 1. Analytical Chemists' Sub-section: Dyer, Bernard, F.C.S., F.I.C.; Hughes, John, F.C.S. (Ceylon Coffee Planters' Association); Manning, Fred. A.; Ogston, George Henry; Denham Smith (Teschemacher & Smith); Wigner, G. W. (Wigner & Harland, F.C.S., F.I.C.) 2. Chemical Manufacturers' Sub-section: Blott, John (J. & J. Blott & Co.); Burt, Boulton & Heywood; Spencer Chapman (Chapman, Spencer & Co.); Hall, T. Farmer (Farmer, Thomas & Co.); Field, J. C. & J.; Ford, A. E. (Gibbs, James & Co.); Hills, F. C. (Hills, Clarke & Co.); Hopkin & Williams; Howard, David (Howard & Sons); Matthey, Geo. (Johnson Matthey & Co.); Johnson, John & Sons; Elborough, Thos. (Lawes' Chemical Manure Company, Limited); Tyrer, Thos (May & Baker); McAdam, C. T. (Nitro-Phosphate and Odam's Chemical Manure Company, Limited); Pontifex, E. W. (Pontifex & Wood); Price's Patent Candle Company (Limited); Atkinson, G. (Atkinson George & Co.). 3. Chemical Merchants' and Brokers' Sub-section: Bauer, G. M.; Geo. Bennett (Bennett, George & Sons); Blagden, W. G. (Blagden & Angus); Caudery, W. (Caudery, William & Co.); Greenbough, D. W.; Fielder, L. P. (Pokorny, Fielder & Co.); Saunders, G. J. (W. C. Bacon); Tennant, W. (Tennant, Charles, Sons & Co.). 4. Druggists' and Druggists' Sub-section: Preston, A.; Umney, C.; Moss, John, Skilbeck, J.; Barron, Squire & Co.; Burgoyne, Burbidges & Co. It is decided to hold the meetings of the section on the last Wednesday in each month at 2 P.M., and that 10 days' notice at least must be given to the secretary of all questions for discussion. The next meeting will be held in October. The first object of the section is to obtain the adoption of some uniform system of chemical analysis. It is proposed to discuss this question exhaustively, to submit it to the Chambers of Commerce throughout the country, and finally to draft a Bill to be submitted to Parliament. The subscription to the Chamber is a guinea a year. Full particulars can be obtained from the secretary, Kenric B. Murray, at the offices, 84 and 85 King William Street, E.C.

TRADE FESTIVITIES.

THE employes of Messrs. Wyleys & Co. held their annual "waygoose" on Saturday, July 14, when the party, through the liberality of the firm, drove from Coventry by way of Kenilworth and Warwick to Stratford-on-Avon, where a substantial dinner was served at the Golden Lion Hotel. Halts were made *en route* at Kenilworth Castle and Guy's Cliff, where Guy, the renowned Saxon earl, retired to die as a hermit, after valiantly slaying the Danish giant Colbrand, and the green dragon, wild boar, and dun cow, which legendary history has placed to his credit. At Warwick, the short time necessary for a change of horses was occupied in viewing St. Mary's Church, with its magnificent tower raised on arches; and Leicester's Hospital, where each of the "brethren" enjoys an allowance of 80*l.* a year, and has the privilege or wearing a blue cloak, decorated on the left arm with a device of the bear and ragged staff—the arms of Robert Dudley, Earl of Leicester, the founder of the charity. Dinner at Stratford being over, "Success to the firm, and health to its members," was drunk, with other toasts, after which the company wandered off to inspect

"Shakespeare's House," and the other memorials of the poet. The river also afforded much attraction, some enjoying the "boats," whilst those of a more venturesome turn of mind, and having faith in their own balancing powers, essayed the frail canoe. After tea the party were once more "all together" in the vehicles, and drove with a rattling pace through the eighteen miles of pleasant country before them, and finally reached Coventry after spending a most enjoyable day.

The annual dinner of the employés of Messrs. Silverlock, London, took place on July 14 at the Black Horse Hotel, Horsham. The chair was taken by H. T. Silverlock, Esq.; W. B. Silverlock, Esq., occupied the vice-chair. A number of toasts, songs, and recitations followed the dinner, and in the afternoon a cricket-match between some of the married and single men was played, resulting in a victory for the former.

The employés of Messrs. F. Allen & Sons, the well-known confectioners, of Mile End, E., numbering about 110, held their annual banquet on July 28, at the Bull Inn, Swanley, Kent, under the chairmanship of Mr. C. Allen, one of the firm. After a good dinner, and a few speeches, the company amused themselves with cricket, &c., until 5.30 P.M., when dancing was commenced, and kept up with spirit until the time of departure, 7.45. The party reached the works in Canal Road about midnight, well pleased with the day's outing.

The twenty-third annual excursion of the employés of Messrs. Burgoyne, Burbidges, Cyriax & Farries, wholesale druggists, of 16 Coleman Street, was made to Margate on Saturday, July 21. J. Cyriax, Esq., presided. On the arrival of the party, luncheon was provided at the Imperial Hotel, and about three o'clock an excellent dinner was served. The usual loyal toasts were accorded due honour, after which Mr. Webb proposed the health of Burgoyne, Burbidges, Cyriax & Farries, and this was drunk with musical honours. Mr. Cyriax responded, and then in a brief, but complimentary speech, proposed Mr. Webb's health. The toast of the visitors was acknowledged by Dr. De Souza. Some excellent pianoforte selections by the chairman and a few songs by some of the company brought to a close a gathering which was in every way a success.

The annual excursion of the employés of Mr. J. C. Eno took place on July 28, at the Old Welsh Harp Tavern, London. The party assembled at the works in Pomeroy street, Old Kent Road, and drove to Hendon, *via* Kew. The weather was fine, and a very enjoyable day was spent.

Provincial Reports.

ABERDEEN.

CURIOUS DEATH FROM POISONING.—On January 6, an Aberdeen tradesman, named Williamson, met his death under unusual circumstances. He had been suffering from ecumatism in the back, and his wife saw in some newspaper that salicylate of soda taken internally relieved such. She cut out the paragraph and took it to the shop of Dr. John Sangster, druggist, Aberdeen. She was supplied the shopman with six powders, each containing 15 grains of the salt, and thereafter administered a dose to her husband. Within an hour such symptoms of drowsiness appeared that she returned to the shop, and six hours later, as the drowsiness continued without intermission, she went again, and was advised to consult a doctor. The patient, nevertheless, died. An inquiry was held, and the widow instituted proceedings against Mr. Sangster to recover 750*l.* damages for the loss of her husband. An offer from the plaintiff to stop the action on payment of 150*l.* was refused. The trial was fixed for August 15 and 16, but the case was compromised on August 3, by permission of the sheriff, by the payment of 400*l.* The analysis of the powders, by Dr. Svenson Macadam, was subsequently published in the daily journals. One of the powders was found to contain salicylate of soda with 49.60 per cent. of morphia, equivalent to 52.63 per cent. of morphia hydrochlorate, in which form it was present.

BERWICK.

A CHEMIST FINED FOR SELLING POISON WITHOUT A LABEL.—At the Berwick Police Court, on August 8, John Elliot, chemist and druggist, Hide Hill, Berwick, was charged with having sold half an ounce of solution of muriate of morphia without labelling it poison. Mr. Grey prosecuted, and Mr. J. K. Weatherhead defended. Elliot pleaded guilty. Mr. Weatherhead explained that Elliot's assistant had sold the poison without his knowledge, and he was not aware of the sale until next morning, when a woman had died from the effect of it. The assistant had since been dismissed. Elliot was ordered to be fined 4*l.*, including costs, or suffer one month's imprisonment.

CHESTERFIELD.

A FRAUDULENT BEETLE POWDER.—Thomas William Fletcher, 46, traveller, was indicted at the Derby Assizes on July 30, for having in December, 1882, obtained 8*s.* from Mrs. Ann Bonsall, the moneys of Henry Bonsall; and on June 8 last, 15*s.* from Mrs. Mary Shelton, the property of Jacob Shelton, and on the 13th of the same month 11*s.* 6*d.* from Henry Parsons Taylor, by means of false pretences, in the borough of Chesterfield. The prisoner professed to be the agent for the firm of Messrs. Fletcher Brothers, Leeds and Nottingham, whom he represented to be the manufacturers of a beetle powder which would kill all kinds of vermin. Prisoner's *modus operandi* was to tell various persons who carried on small businesses that he wished to appoint an agent for each town, and that if they paid some few shillings they would be appointed agents for the sale of this particular beetle powder. Under these circumstances he obtained 8*s.* from a woman named Ann Bonsall, on the assumption that she was to be the sole agent for the powder, and also 15*s.* from Mrs. Shelton, who in that case purchased a quantity of goods, as well as 11*s.* 6*d.* from Taylor. The beetle powder was nothing more than plaster of Paris. The prisoner told all his dupes that they would receive 10*s.* per month for being sole agent. Mr. T. B. Fletcher, of the firm of Fletcher Bros., of Nottingham, chemists and druggists, said that the prisoner was never in any way authorised to represent himself as an agent of that firm. There was no other firm of that name in Nottingham who were chemists and druggists. Police Superintendent Emery, of Chesterfield, stated that when the prisoner was in custody he said that he was agent for the firm both at Leeds and Nottingham, and that he was supplied with powder by Messrs. Mather, of Manchester. Mr. Alfred H. Allen, of Sheffield, the public analyst, said that the powder was harmless on beetles and the like, being nothing more than plaster of Paris, which was remarkably cheap. Prisoner was found guilty, and sentenced to two calendar months' hard labour.

EXETER.

SAD DEATH OF A CHEMIST.—An inquest was held on June 18, on the body of Mr. George Delves, chemist, of High Street, who was found dead in bed on the previous Saturday. Mr. Delves was of intemperate habits, and when suffering from the effects of drink he was in the habit of taking bromide of potassium and a saline draught, one of the ingredients of which was prussic acid. In his room were found bottles of the mixture, and Dr. Henderson expressed an opinion that Mr. Delves met with his death by taking an overdose of prussic acid. The jury returned a verdict of "Death through misadventure." Mr. Delves was formerly Local Secretary of the Pharmaceutical Society, which office he resigned quite recently, and was also on the Executive of the Chemists' Trade Association.

GLASGOW.

PRESENTATION.—Mr. David Lees, pharmaceutical chemist, Glasgow, was entertained to dinner in the Choral Restaurant, West Nile Street, Glasgow, and presented with a Hartsnack's microscope, by a large number of pharmaceutical students in the west of Scotland, as a mark of their high esteem, and in recognition for his valuable services in teaching for the pharmaceutical examinations. Mr. W. G. Audus, chemist, Dundas Street, Glasgow, ably discharged the duties of chairman, and Mr. Alexander Brown, chemist, Dumbarton, in a graceful speech made the presentation, to which Mr. Lees suitably responded.

CURIOUS ACCIDENT.—John Craig, who carries on business as a slater in Graham Street, Glasgow, was apprehended on July 21, on a charge of having caused the death of a message-boy named James Gibson. The boy had dropped a two-gallon jar of naphtha in the street, saturating his own clothing, and Craig thoughtlessly put a match to the inflammable liquid. The boy's clothing caught fire, and he was severely burned, and died the following morning in the infirmary.

LEIGHTON BUZZARD.

A LARGE and very handsome pharmacy has just been completed here by Mr. J. Herington. The fittings are in mahogany and ebony, a combination which has a pretty effect. Five large mirrors give a very bright and cheerful appearance. The front of the dispensing counter is surmounted by hand-painted cathedral-beaded lights, richly gilded. The whole has been very creditably executed by Messrs. Bowling & Govier.

NOTTINGHAM.

LIME-WATER AND THE SALE OF FOOD AND DRUGS ACT.—In the Summons Court at the Nottingham Town Hall, on August 10, before Mr. Blain and Mr. Dobson, Mr. James Goodall, chemist, of Sneinton Road, was summoned for having sold lime-water not of the nature and quality of the article asked for. Mr. Farmer (from the Town Clerk's office) appeared to prosecute, and Mr. Cann defended. Mr. Farmer stated that the prosecution was instituted by the Health Committee of the Corporation, and the defendant was summoned for selling what was called lime-water, but which they contended was not so according to the provisions of the Sale of Foods and Drugs Act, 1875. The Inspector of Nuisances, Mr. Richards, purchased some of the so-called lime-water from the defendant, and took it to the borough analyst, who certified that it was not lime-water in the ordinary acceptance of the term, as it was deficient in the usual quantity of lime to the extent of 47 per cent. Lime-water proper was water holding in solution the largest quantity of lime that it was capable of containing. The Bench would see that that was a serious case, as at the present time lime-water was being very freely prescribed by doctors for infants. It was very essential that the attention of chemists should be called to the provisions of the Act. Mr. Cann pleaded guilty on behalf of his client, and, no evidence being offered, the defendant was fined 5*l*. Mr. Frank White, chemist of London Road, pleaded guilty to a similar charge, and was also fined 5*l*.

SITTINGBOURNE.

MELANCHOLY DEATH OF A CHEMIST.—A very painful incident attended an excursion of the Local Working Men's Club to Brussels and the field of Waterloo last week. Telegrams were received from the English Consul at Ostend, and the secretary of the club, announcing that one of the party, Mr. John Saffrey, chemist and dentist, died at Ostend, just after leaving the steamer which had conveyed the excursionists from Dover.

UXBRIDGE.

WEIGHTS AND MEASURES ACT.—Mr. J. C. Rayner, chemist, High Street, was summoned at the Uxbridge Court on July 23 for having in his possession 37 unstamped weights and 57 apothecary's weights which were incorrect.

Mr. E. J. Stevens, the new inspector of weights and measures, visited defendant's shop on July 13, and found the weights in the dispensing-box. He had since tested them and found deficiencies varying from half a grain to a grain. Mr. William Mercer defended, but pleaded in mitigation of the offence that Mr. Rayner had had no intention whatever of evading the Act of Parliament or defrauding the public in any degree by giving them short measure. He, and his father and grandfather before him, had carried on business in the town for 80 years. He had purchased his weights and measures from Messrs. Moores & Son, Mr. Gregg, the late inspector of weights and measures; tested the weights and measures about a twelvemonth ago, and made no complaint about them. Defendant had also employed a proper person for years to examine them periodically, and the receipts for the two last payments were produced, one of which was given so late as June last.

As this person was not present the Chairman held that the receipts only proved that he had been paid, not that he had examined the weights.

Mr. Mercer added that another feature of the case was that by the 27th section of the Act a person who manufactured or sold false weights was liable to a much heavier penalty than the person who used them. In dealing with a firm like Messrs. Moores & Son, Mr. Rayner therefore felt perfectly safe.

In reply to a question from the Bench, Mr. Mercer said the business had been carried on in the name of Rayner for 80 years, and his client could not say distinctly which weights had been in use for that length of time and which had not; they had all been mixed together.

The Chairman said they were bound to convict, but they did not intend to convey the impression that Mr. Rayner had had any intention of committing the offence. He would be fined 10*s*., including costs, in respect of each summons, 17 in all.

Mr. Charles Gaylard, chemist, High Street, was summoned for having 15 apothecary's weights and 6 measures unstamped, and also for having 15 apothecary's weights and 8 avoirdupois weights which were incorrect.

Mr. Mercer likewise defended in this case. The facts, he said, were very similar to those of the last case, but *pro forma* he would plead not guilty.

Mr. Stevens deposed to visiting the defendant's shop on June 13, and seizing the weights and measures mentioned in the summons. A 2-lb. weight, the largest of the avoirdupois, was a quarter of an ounce light; a 1-lb. weight, 3 drachms deficient; and the others proportionately less. The largest glass measure was 2½ drachms "large" on the first half-ounce.

Mr. Mercer explained that this measure was not used in dispensing, and added that it was the same now as when it was received by Mr. Gaylard from Messrs. Moores & Son. Nothing could alter the marks. The late inspector visited the defendant's premises twelve months ago and examined all the weights and measures, and remembering this and also the fact that he had purchased them from a respectable firm, Mr. Gaylard might surely sit down and safely rely upon his not offending against the Act.

The Chairman said they certainly ought not to fine the defendant in respect of the large glass measure, inasmuch as he must have been at a loss by using it. He asked the inspector whether he supposed a druggist would measure half an ounce in such a vessel.

Mr. Stevens: He would not get half an ounce out if he once got it in. The officer was pulled up by Mr. Mercer for speaking of himself and the Board of Trade as "we."

A fine of 10*s*., including costs, in respect of each summons, was imposed in this case likewise, and also in that of Mr. Tom Waterhouse, carrying on business in High Street, Uxbridge, as a chemist, who was summoned for having 22 weights and 5 measures unstamped, and likewise for having 23 incorrect weights.

WEST MALLING.

THE REV. J. H. TIMINS, Vicar of West Malling, was acquitted on July 18, of the charge of the manslaughter of Sarah Ann Wright, by administering to her a teaspoonful of oil of bitter almonds in December last. Defendant believed that he was administering the sweet oil of almonds, though he had been warned by the chemist who supplied the oil, and the bottle was labelled poison.

CANADIAN AD VALOREM DUTIES.—A new regulation, somewhat affecting the Canadian tariff, came into force on August 1. It provides that when any duty ad valorem is imposed on any goods imported into Canada, the value for duty shall be the fair market value thereof, when sold for consumption in the principal markets of the country whence and at the time when the same were exported direct to Canada. It does not appear likely that this will much affect the drug or chemical trade, but it is expected to influence injuriously trade in hardware, and other branches which are sold at fixed prices, subject to varying discounts. Canadian imports for 1881, from Great Britain, amounted to \$43,583,808; from the United States, \$36,704,112, and from other countries, \$11,323,684.

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held at 17 Bloomsbury Square, on July 19. Present:—Professor Artfield, F.R.S., &c., President, in the chair; Messrs. Carteghe, Ekin, Naylor, Southall, Taylor, and Dr. Thresh; Messrs. Benger & Plowman (Hon. Secretaries), and Mr. Ashton (Local Secretary for Southport). Letters of apology for non-attendance were read from Messrs. Groves, Kinninmont, Payne, and Young.

Mr. Ashton (Southport) reported that the preparations of the Local Committee were nearly complete. The proprietor of the Prince of Wales' Hotel had guaranteed forty beds for members of the Conference, and he was of opinion that more could be obtained if required. Arrangements had been made for a visit on Thursday morning to the Plate Glass Company's Works and the Sutton Alkali Works at St. Helens. On the Thursday afternoon there would be a garden party in the Botanical Gardens.

The Secretaries reported that acting on instructions received at the last meeting of the Executive Committee, they had communicated with a number of gentlemen residing abroad with a view to the appointment of Colonial Local Secretaries in Canada, Cape Colony, India, New South Wales, New Zealand, Queensland, South Australia, Tasmania, Victoria, and the West Indies. A sufficient time had not yet elapsed for any replies to reach England.

They also reported that circulars had been issued to all registered chemists in Great Britain and Ireland not already members, inviting them to membership of the Conference. The number sent was 11,567, and the total cost would be approximately 91*l*.

The following grants were made:—5*l*. to Messrs. Dunstan and Short to investigate the pharmaceutical preparations of *nux vomica*, principally in regard to their alkaloidal value; 10*l*. to Messrs. Dunstan and Ransom to further extend the method of alkaloidal extraction with the chloroform-alcohol mixture; 2*l*. 2*s*. to Mr. W. Elborne to purchase material for determining the comparative pharmaceutical value of commercial rhubarb.

The place of meeting for 1884 was considered.

The Hon. Secretaries reported that reports and papers had been promised for the Southport meeting by Mr. A. H. Jackson, B.Sc., Dr. Quinlan, and Messrs. Barnes, Dunstan, Elborne, Greenish, Groves, Mason, Naylor, Stanford, Willmott, and Woodland.

With regard to the Bell and Mills gift of books, Mr. Ashton said that no association of chemists existed at Southport, but he thought it probable that an arrangement could be made to place the books in the public library for the use of the pharmacists of the town, reserving the power to take them away at a future time if an association should be formed. It was decided that the matter should be left in the hands of the President and Hon. Secretaries.

A letter of thanks for a copy of the "Year-Book" was read from the Pharmaceutical Society of Victoria.

The thanks of the Conference were accorded to the Pharmaceutical Society of Great Britain for the gift of a copy of the Register of Chemists and Druggists for 1883, and to the Pharmaceutical Society of Ireland for two copies of the Calendar of the Pharmaceutical Society of Ireland for 1883.

ANALYSES IN GERMANY.—The Berlin police pay for chemical investigation of the following substances the rates quoted below, namely:—Six marks for butter; 3 marks for tea; 2 marks for meal, bread, groats, chicory, chocolate, mustard, plum conserve, or tobacco; 1½ mark for spices; 1 mark for coffee, cheese, seltzer water, or fruit juices, and ½ mark for sugar.

STAMPS ON PROPRIETARY ARTICLES IN AMERICA.—The new United States tariff law repealed the tax on proprietary articles, which brought in about \$2,000,000 annually. The repeal came into operation on July 1, but it appears from the American journals that neither the public nor the retailers are to get any immediate benefit, as manufacturers have generally declined to make any reduction in consequence.

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, June 25.

IN my last letter I referred to the attempt which was again being made in the direction of early closing for chemists, and I am glad to say that good has already resulted from the agitation. At Ballarat and Geelong early closing is an accomplished fact, and, in addition, at Ballarat all chemists close from one to six o'clock on Friday afternoon.

The daily press of Melbourne has given great prominence to the discussion, and scarcely a day passes without one or two letters appearing in support of the movement.

In a leading article in the Melbourne *Argus*, the writer says, "It is evident, however, that no matter at what hours druggists' shops might be closed, some people would need to be served subsequently. All public requirements could not be met in the ordinary way without keeping open doors throughout the whole twenty-four hours. But it is generally admitted that even pharmacies must close at some time, and so far as the legitimate needs of the public are concerned six o'clock might just as well be the hour fixed as nine or ten.

"Nine-tenths of the business done after six might as well be done before, and would be so transacted if people knew that no dispensing would be done after that hour, except in case of emergency. As the druggist trade is to some extent a close one in this colony, it should be easy to bring about the reform required.

"If a general desire for early closing exists, a new system may be adopted forthwith without pecuniary loss to the trade.

"No doubt the proprietors of the large establishments, where several assistants are employed, will gladly sanction the shorter hours. They get through their business in good time, and can always arrange to have some one on the premises to serve the few applicants who can legitimately claim attention during the evening. The difficulty, we think, will be to secure the co-operation of men who keep small shops and require no help.

"They may say that they do not want to close early, that they require every shilling they can make, and prefer customers to ease at all hours.

"It is not easy to see how pressure can be brought to bear in these cases.

"However, if the whole trade will take a large and liberal view of the subject, and act as one man, the public must accept its terms."

A large meeting of chemists' assistants was held at 10 o'clock p.m. on June 20 at the Victoria Coffee Palace, the object being to take steps to secure shorter hours of labour. Mr. J. B. Mummery was voted to the Chair, and referred to the efforts of the old Chemists' Assistants' Association in endeavouring to secure shorter hours. In consideration of the severe mental strain to which chemists were subjected, it was very unreasonable that they should be the only persons in the colony required to work until an inordinately late hour, while other classes (operatives especially) demanded and obtained fewer hours. He considered that the hour at which they were called together was itself sufficient evidence of the long hours of labour the assistants are subject to at present. He had no doubt that if the matter were judiciously agitated, the concessions sought for would be obtained.

Mr. W. Low moved: "That we hereby affirm the necessity for a reduction being made in the hours of labour of the chemists' assistants of Victoria." The resolution was carried, as was also another resolution appointing a deputation to represent the views of the meeting to the Pharmaceutical Society.

The annual meeting of the Pharmaceutical Society of New South Wales was held at Sydney on June 20, the President, Mr. Frank Senior, being in the chair. The report was read by the secretary. It states:—"The satisfactory results of the examination, in chemistry, pharmacy, and

knowledge of dispensing are in no small degree attributable to the clear and concise way the lecturer has of adapting his lectures to his audience, as well as the growing desire of the rising generation to study and acquire knowledge of that which appertains to, and is inseparable from, their future advancement and success."

The President, in the course of his address, stated "that it was imagined that when a youth had entered on his apprenticeship he would devote the whole of that period to qualify himself for the distant examination. He was sorry to say this was rarely the case. As a rule, the majority of these young gentlemen were much fonder of reading 'The Bloody Pirate of the Indian Ocean,' or some such startling work, than the more sober and profitable 'Chemistry of a Candle,' Johnson's 'Chemistry of Common Life,' and many other condensed and interesting works."

Another clause in the report states:—"Your Council are glad to be enabled to state that after several meetings and much deliberation, a new and comprehensive Pharmacy Bill has been prepared, and that the same will be introduced early in the ensuing session of Parliament. This Bill will have the effect of protecting the duly-qualified chemist, casting the charlatan, as well as ensuring confidence in the public mind, and that of the medical profession, that none but qualified men will be permitted to dispense or deal in medicines. A conference of the Pharmaceutical Societies of all the Australian colonies, including New Zealand, to be holden this year, has been projected by the Victorian Pharmaceutical Council, but upon the proposition being brought before your Council, it was resolved 'that it would be advisable to postpone holding the same until some time next year.'"

The Sydney correspondent of the Australasian supplement to THE CHEMIST AND DRUGGIST, commenting on the postponement of the Conference, says:—"Though many greatly regret that the proposed Conference is indefinitely postponed, yet those who know the state of the trade in this colony will not be surprised at it. There is no unanimity either in the Society or out of the Society among the druggists of our land. Keenness of competition, and a desire to overreach or undersell one another, at present prevent any unanimous action, even although the result would be for the lasting good of the trade and the colony."

The quarterly examinations under the Pharmacy Act of Victoria, 1876, have again passed off in a satisfactory manner, the candidates for the Major examination—of whom is required a preliminary examination, four years' apprenticeship, and attending the materia medica, botany, and elementary and practical chemistry classes at the Melbourne University, or the School of Pharmacy, for twelve months, and afterwards passing a final examination in practical pharmacy—having all passed. The number of candidates for this examination will be increasing every year, there being already 128 apprentices who must pass this examination before they can be registered.

From New Zealand I learn, under date of June 9, that a meeting of chemists was held at the Shamrock Hotel, Dunedin, when it was resolved that the various clauses in the proposed amendments to the Pharmacy Act be opposed, and a committee, consisting of Messrs. Marshall, Isaac, and English, was appointed to give effect to the resolutions. The meeting also resolved to forward their proposals to all registered chemists in the colony, and ask their co-operation in carrying out the same.

Mr. Frederick Wright, the lecturer to the Pharmaceutical Society of New South Wales, has addressed an interesting letter to the *Sydney Morning Herald*, on "Pharmaceutical Education." In his letter Mr. Wright states, "During the three years I have been engaged in lecturing to the Society's students, I have never observed one of them display the smallest anxiety to learn more than is absolutely demanded. To say the least, this is somewhat discouraging to one to whom the pecuniary remuneration is a matter of perfect indifference."

"The examinations may be 'good so far as they go,' but experience shows they are but poor tests of a candidate's competence as a druggist. This arises from the fact that the examiners hitherto have not been experienced as teachers, and though they excel as business men, and are highly respected by all who know them, they cannot be expected to

discharge the duties of examiners with the same proficiency as professional instructors.

"I am decidedly in favour of a preliminary examination before apprenticeship, and the term of apprenticeship should be at least four years."

At the annual meeting of the Pharmaceutical Society of New South Wales, a unanimous vote expressing sincere regret at the deaths of Mr. J. S. Norris, Mr. E. J. Hinder, and Mr. Frederick William Elliott, junior, was carried.

Mr. Norris was one of the oldest, if not the oldest druggist, in the colony, having been in business for a period of 43 years. He excelled as a chemist and as an electrician more than as a man of business; and for scientific knowledge and ability was held in great esteem.

Mr. Hinder is spoken of in the highest terms.

Mr. F. W. Elliott was the son of Mr. Elliott, of the well-known firm of Elliott Bros.

PHARMACY IN CANADA.

(FROM OUR OWN CORRESPONDENT.)

MONTREAL, July 26.

PHARMACEUTICAL matters are very quiet on the shores of the St. Lawrence. In the larger cities the best families are out of town, either rustivating in a rural retreat to which paterfamilias has access every evening by the aid of local trains and commutation tickets, or seafaring it at Cacouna, Murray Bay, or Tadoussac.

This annual summer migration of our best customers necessarily makes business dull, and the occasion is eagerly seized upon by the overworked pharmacist to take sundry little trips to recruit himself.

The fact is the pharmacist stays at home a great deal too much. A little money spent in foreign travel annually would make a man of him, both physically and mentally. His ideas would be forced to expand, for he would see other people's methods of carrying on business, and perhaps he might return a little more contented with his lot than he is at present.

A question very frequently asked by assistants at home is—Shall I better my condition by emigrating to Canada?

No direct answer can be given to this question. Success depends altogether on the man. Really good drug clerks (assistants) are undoubtedly always in demand, but it does not by any means follow that English drug clerks are. It appears to me that the Englishman is not so well adapted to emigration as is either the Scotchman or the Irishman. He does not fall on his feet so quickly.

The English drug clerk comes to Canada with very extravagant notions of his own importance. He no sooner lands than he begins to criticise and to grumble. Instead of adapting his own habits to the habits and peculiarities of the people around him, he wants them to adapt theirs to his.

It is singular, but nevertheless true, that nearly every English assistant coming to Canada apologises for coming. Therefore they are not particularly popular, and we do not as a rule engage them, but pass them along until their insular snobbishness is rubbed out of them.

The demand for help seems to be more in the direction of the home-made article. No one of course would refuse an applicant only because he is English, but the specimens we see are not exactly what we require, while the native born, particularly the Ontario men, suit us better. Young men who are eternally boasting of their wealthy connexions at home, who dress in the latest style, and who are always grumbling at the late hours and hard work are not desirable drug clerks. The English assistants who would do best here, and I think they would be appreciated, are those who have served an apprenticeship in the provinces, and have afterwards had a year or two's London experience. In this province ability to converse in the French language is necessary, and that is why English emigration of all kinds tends to the province of Ontario.

It is very essential for the emigrant to bring proper certificates of character, more especially as to honesty, and a letter or two of introduction to some respectable party here does

no harm. It is always a great risk to place behind one's counter a young man just arrived from a foreign country, whose credentials may be all bogus, and himself a dishonest man. It is not the same when a man is in his own country and his character can be obtained from his last employer by return of mail.

In Canada and in America generally pharmacists pay wages to their apprentices, the system of binding by indenture for 5 years not being in vogue. A verbal engagement is usually made, the apprentice being in nearly all cases out-door. Salary begins at two dollars per week the first year, \$3 the second year, and \$4 the third year, after which the youth is paid according to ability. It would be a very difficult thing to hold a youth in bondage for five years in this country, the indenture to the contrary notwithstanding. The discontented youth would simply take the first train to the United States and free himself. In a new country the only practical plan is for the employer and his apprentice to separate whenever they are tired of each other.

Assistants are well paid when their ability and trustworthiness is once well assured. Reliable men earn from \$300 to \$600 per year, according to ability. Very few pharmacists can, however, afford to pay the latter sum, and I question whether more than four or five in Montreal receive it, and they are in confidential positions. It is as true here as it is in England, that pharmacists cannot in justice to themselves pay large salaries.

The wholesale trade in Canada appears to be in better accord now than formerly, as a tariff of prices for certain proprietary articles and druggists' specialties has been agreed upon and printed. A better understanding has also been arrived at with regard to credits.

It seems rather funny that all the wholesale houses should agree to sell their wares at the same price. It effectually puts a stop to competition in the articles thus scheduled. When a retailer has a list in his want-book he simply sends it to the firm he is most intimate with, or whom he fancies treats him most politely. It is very nice, but one would suppose it will tend to check enterprise.

The great evil remains to be grappled with—that is, the breaking of packages, and charging at package rates. Thus, an article is down on the wholesale price-list at \$3 a dozen, and scarcely a house here but would unpack the case, take the risk of breakage, deliver the goods, and sell one-sixth of a dozen at the dozen price.

AMSTERDAM EXHIBITION AWARDS.

WE learn that through the exertions of Mr. P. L. Simmonds, without Government support or the assistance of British jurors (with the exception of Mr. E. Rimmel, who kindly volunteered his services), the following awards have been obtained for British exhibitors:—Twelve diplomas of honour, fifty gold medals, sixty-two silver medals, forty-seven bronze medals, and twenty-eight honourable mentions. Mr. Simmonds has had great difficulties to contend with in the want of funds and sufficient staff.

The following are the awards in the chemical class at the Amsterdam Exhibition:—

CLASS 40.

Berger & Sons (Lim.), gold medal
V. J. Bush & Co., gold medal
J. C. Calvert & Co., gold medal
John Gosnell & Co., gold medal
Rice's Candle Company, gold medal
Boake, silver medal
Antrell & Cochrane, mineral waters, silver medal
Cresswell & Co., sponges, silver medal
Packard & Co., artificial manures, silver medal
C. Stevens, stains, silver medal
Williamson, varnishes, bronze medal
Meydon Manure and Alkali Company, bronze medal
F. Brown & Co., blacking and polish, bronze medal

T. Chisty & Co., drugs, bronze medal
Maltine Manufacturing Company, bronze medal
J. Richardson & Co., bronze medal
Langdale Chemical Manure Company (Lim.), honourable mention
R. J. Fulwood, honourable mention
United Asbestos Company (Lim.), honourable mention
J. Sinclair, honourable mention.

CLASS 38.

Pitt & Co., mineral waters, gold medal

CLASS 32.

H. C. Stephens, inks, silver medal

CLASS 31.

John Gosnell & Co., brushes, gold medal

INTERNATIONAL PHARMACEUTICAL EXHIBITION AT VIENNA.

PHARMACISTS have not often been honoured with an "international exhibition" all to themselves. It is true that whenever English pharmacists have chosen to hold an exhibition, they have never refused to receive articles for the reason that they were of foreign origin, and as a matter of fact, foreign goods have been exhibited on these occasions. But no one here has ever employed the high-sounding adjective to designate the modest collection of apparatus and products which have from time to time excited a passing interest here, nor have Europe and America been officially invited, with all formalities, to be represented on the occasion.

The Vienna International Pharmaceutical Exhibition was proposed about last November, by the Austrian Apotheker Verein, partly with the object of gaining an acquaintance with whatever the manufacturers of their own and other lands had to show, and partly, it appears, for the purpose of obtaining money for a sort of benevolent fund which exists in connection with the society. Everything has been carried out in the most official manner. A programme was drawn up; objects for exhibition were to be classed under six groups, the railway companies and the customs were induced to allow the usual concession in respect to the transit of goods in Austria; as in the case of the biggest exhibition, the Archduke, Carl Ludwig, was interviewed, and was obtained as the patron of the exhibition, jurors were invited and their duties defined, and provision made for granting diplomas of honour, and diplomas for gold and silver medals.

It does not appear that the Society intends itself to give away any gold or silver. The instructions to the juries are to award diplomas of honour to "the best, most excellent, and most perfect works;" diplomas of gold medals for the discoveries, improvements, and the useful introduction of objects exhibited; diplomas of silver medals for serviceable contributions to pharmacy or its allied branches.

The Committee were instructed to maintain the scientific character of the exhibition, and to bear in mind that the perfection of Austrian pharmacy was the object aimed at. That frugality was also imposed on the Committee seems probable from the fact that the President of the Committee was able to congratulate the Society that the expenses incurred amounted only to a little over 400 florins, while the amount received for exhibition space had reached about 5,400 florins.

The juries are to examine the exhibits between August 15 and August 20, and their awards are to be published as soon as possible afterwards. Following are the names of the jurors and the numbers and nationalities of the exhibition, classified according to the groups.

Group I.—Scientific instruments for pharmaceutical purposes. Exhibitors: 6 Austrian, 2 German. Jury: MM. Jarmay, Buda-Pesth; Dr. Schlosser, Vienna; F. W. Kraft, Vienna.

Group II.—Literary contributions to pharmacy and the subsidiary sciences. Exhibitors: 10 Austrian, 3 German, 2 French, 1 Italian, 1 Spanish, 1 American. Jury: MM. Dr. H. Hager, Berlin; Dr. Goddefroy, Vienna; Dr. A. Friedrich, Vienna.

Group III.—Apparatus and machines for the preparation of medicines. Exhibitors: 10 Austrian, 6 German, 2 French, 1 American. Jury: Dr. C. Brunnengraber, Rostock; E. von Keler, Biala; R. Engländer, engineer, Vienna.

Group IV.—All necessary or useful appliances and utensils for a pharmaceutical business. Exhibitors: 36 Austrian, 4 German, 1 Danish. Jury: MM. Dr. Boettger, Bunzlau; Madsen, Copenhagen; Fanser, Buda-Pesth; Friedrich, Vienna; Heindl, Ottakring; and Linde, Melk.

Group V.—Medicinal preparations, including chemical and pharmaceutical products, drugs, wines, mineral waters, spirits, foods, bandages, &c. Exhibitors: 87 Austrian, 19 German, 22 French, 6 Swiss, 4 Russian, 4 Italian, 3 English, 2 American, 2 Swedish, 2 Spanish, 1 Belgian, 1 Danish, 1 Dutch, 1 Roumanian. Jury: MM. Dr. Ludwig, Vienna; Dr. Reichhardt, Jena; Dr. Mchu, Paris; Petit,

Paris; Dr. Hirsch, Germany; Eiehler, Graz; Kofler, Dornhim; Nedwed, Graz; Pserhofer, Vienna; Fluckiger, Germany; Wiesner, Vienna; Scherr, Switzerland; Sebacht, Berlin; von Pernwert, Meran; Grüner, Hernal; Dr. von Mundy, Vienna; and Boettcher, Stein.

Group VII.—Contributions to the history of pharmacy. Exhibitors: 25 Austrian, 1 each Spanish, German, Russian, and Swiss. Jury: MM. Greenish, London; Peters, Nuremberg; and Janotta, Falkenau.

OPENING OF THE EXHIBITION.

(BY OUR OWN CORRESPONDENT.)

VIENNA, August 11.

THE weather here for the last few days has been dull, with frequent showers; the earlier part of to-day it has been still overcast and damp, and a little rain has fallen, but later it got out bright and fine.

The building in which the exhibition is held is the Floral Hall (Blumen Saale) of the Horticultural Society (Gartenbau Gesellschaft), in the Parkring. It is somewhat ecclesiastical in form, being cross-shaped. The entrance is on the east side; opposite is the west transept, of a semi-circular form; at the end of this, facing the door, is a fine collection exhibited by the Austrian War Department, consisting of the medicines and other appliances, medicine-chests, &c., of various kinds, ready for the field. A bust of the Emperor is placed in front of these. To the right and left, in the body of the building, are placed the stands of the various exhibitors of drugs and chemicals from different nations. In the centre are several cases containing books relating to pharmacy, ancient and modern.

Two galleries cross the centre of the building, on which are a few stands, principally devoted to confectionery, comestibles, &c. The view from these galleries is somewhat imposing as you look down towards each end of the main part of the building. A judicious display of flags and bunting, and the neat arrangement of many of the stands from this point of view is very effective. In two side wings, parallel with the main body of the building, are exhibited, in one, glass apparatus of various kinds for pharmaceutical purposes; in the other is displayed other apparatus and machinery devoted to the same uses.

The exhibition is cosmopolitan in more senses than one. Not only are there exhibits from various countries, but even the 'opathies agree to differ. Dr. Willmar Schwabe, of Leipzig, exhibits a homœopathic dispensatory—a complete fit-up of a counter, drawers, bottles, shelves, medicines, &c., suitable for a homœopath.

Pharmacy has been once more snubbed by Royalty. Carl Ludwig is said to be ill, and unable to come and open the exhibition. In his absence Baron Conrad, of Eybesfeld, has been deputed to open it, in company with the Austrian Minister of War, Baron Byland Rheid. Punctually at 10 A.M. they arrived, and were received by the President of the Vienna Apotheke Verein, Herr Von Waldheim, and the Committee, by whom the Barons were led in front of the exhibit of the War Minister. Here Herr Von Waldheim addressed the Minister, who replied, and declared the exhibition open. Director Schaffner then spoke, and after a few words from the Vice-Mayor of Vienna, Dr. Prix, the Committee were presented to the Barons individually, and the latter then went round and examined the exhibits, many of them minutely.

A good company of visitors were present at the opening, but by noon they left the building much deserted. The charge for admission to-day is 1 florin. To-morrow (Sunday) and after, it will be 50 kreutzers.

The catalogue was not published till noon of the opening day. It is well got up, and gives, besides a list of exhibits, fairly correct, much information respecting pharmaceutical matters in Austria. The prices 30 kreutzers.

The principal part of the stands of the exhibitors are in a fairly finished condition. From a rapid glance round I notice Austria and Germany occupy far the largest space in the exhibition, as was naturally to be expected.

The historic German houses exhibit fine collections of chemicals, particularly Merck, of Darmstadt, whose display is most valuable. He exhibits fine specimens of atropine and

homatropine preparations and crystallised hydrochlorate of apomorphia, almost colourless; also a fine specimen of pure crystallised eserine (physostigmine), as well as crystallised hydrochlorate of gelsemine. Gehe, of Dresden, also exhibits a fine collection of chemicals and many prepared drugs in powder, and some, such as rhubarb, cut in small cubes. G. Hell & Co., of Troppeau and Vienna, exhibit a large quantity of pharmaceutical preparations of no marked interest; Franz Wilhelm & Co., of Vienna, make a fine show of crude drugs, many in original packages, such as santonica, ipecacuanha, scrons of bark, and maté. Schmidt & Co., Leipzig, show fine specimens of crystallised apiol, thymol, menthol, as well as essential oils. J. Kütgers, Vienna, has a good collection of coal-tar products, phenol, xylol, pyridin, naphthol, chinolin, &c.

France sends a number of exhibits, which are nearly all on one stand; they are mostly French specialties, such as Fer Bravais, Dr. G. Fournier's preparations of creasote with cod-liver oil, wine of creasote, preparations of Kava Kava; elixir of gelsemium, &c.; E. Fournier's coca and cinchona wines; Desnoix & Co. exhibit antiseptic gauze, lints, &c.; Rigaud & Dusart exhibit pepsine preparations and santal oil perles; MM. Thevenot and L. Pingeon, both of Dijon, exhibit fine collections of perles containing various medicines.

The enterprising Americans are represented by Parke, Davis & Co., Seabury & Johnson, and Warner & Co.

England is represented by Fletcher, who exhibits his liquors; and Martindale, who exhibits his nitro-glycerine tablets and a few copies of the "Extra Pharmacopœia."

THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the British Medical Association, which now numbers 10,050 members, was held at Liverpool in the first days of this month. Rather more than 1,000 associates in all inscribed their names, and in all respects the meeting seems to have been regarded as a success. The first item of the programme was a sermon by the Bishop from the text, "Luke, the beloved physician." This was on July 31. In the afternoon the first general meeting was held, when Dr. Strange, of Worcester, resigned the chair to Dr. A. T. H. Waters, of Liverpool. The report followed, and then ensued a lively discussion on a bye-law inaugurated by Mr. Nelson Hardy. The bye-law stated that any duly qualified male person was eligible for election. Mr. Hardy wished to make the practice of homœopathy or advertising disqualifications as well as femality. Some abusive remarks respecting homœopaths by one or two speakers were distasteful to some of the members, and a considerable tumult resulted, but ultimately the bye-law was allowed to stand unaltered. In the evening the presidential address was delivered by Dr. Waters, who discoursed on the present aspect and the future prospects of medicine.

The second day was marked by an important address in surgery by Mr. Reginald Harrison, of Liverpool, who especially discussed the surgery associated with the urinary organs. The association listened to and discussed in sections papers relating to medicine, surgery, obstetric medicine, public medicine, anatomy and physiology, pathology, psychology, ophthalmology, diseases of children, otology, and military surgery. In the evening a very brilliant soirée was held in the Art Gallery.

The next day the sectional discussions were resumed, and in the evening the annual banquet was held at the Philharmonic Hall, and was attended by nearly 500 gentlemen. At this banquet a special difference is made in the price of the tickets to those who take wine and those who do not—a very proper and desirable concession to the increasing temperance of the age.

At 8 o'clock the next morning the temperance section met for a breakfast at the Adelphi Hotel, the company numbering some 250. A few more sectional meetings were held, and afterwards the final general meeting was commenced when numerous votes of thanks were passed, and

the members separated to meet again next year at Belfast under the presidency of Dr. Cumming.

Numerous excursions to some of the chief Atlantic steamers, and to other scenes of interest were organised during the session, and gave much pleasure. On the top floor of the College, where all the meetings took place, a most interesting

EXHIBITION

of pharmaceutical preparations and surgical instruments was held. This was visited during the period of the meeting by large numbers of the doctors, and it certainly was one of the best means of bringing before the medical profession such results of investigation as are worth their attention. The Committee make no charge for space, but of course exercise discretion as to what they admit. On this occasion the pharmaceutical exhibits were of exceptional importance, and particularly noticeable were the high character of the local contributions, and the force in which American manufacturers presented their products.

Naturally, Messrs. Evans, Son & Co. made one of the finest and most varied displays, but it seems only fair to them to say that they declined to supply any of their goods except through chemists. A notable feature of their exhibit was a collection of specimens, illustrative of American pharmacy, prepared by Messrs. H. Sugden Evans & Co., of Montreal and Boston, including a complete set of the fluid extracts of the United States Pharmacopœia, many of which are unknown in English medical practice. White fossiline, and a number of the ointments of the British Pharmacopœia, also attracted much notice in Messrs. Evans's exhibit. They also showed a special brand of tasteless castor oil, fine samples of cod-liver oil, cube cigarettes, and a number of other medicines more or less out of the common way. Montserrat lime juice, and some tablets like acid drops containing the Montserrat juice in a concentrated form were "on tap," and the latter disappeared rapidly. Among Savur's specialties, also showed by Messrs. Evans, were very convenient little packages for carrying safely bottles of medicine by the parcels post.

Messrs. Symes & Co., of Liverpool, had also quite a remarkable pharmaceutical collection, including preparations of every drug that has been introduced in recent years, with many that have not been extensively heard of. Dr. Symes, himself a living "companion to the materia medica," was at hand to explain everything. Dr. Symes was also busy giving practical illustrations of some urinary test papers prepared by Messrs. Wilson & Son, of Harrogate, on the suggestion of Dr. Oliver. By means of these papers, which are prepared in the form of the books of litmus leaves, an almost instant reaction is obtained if albumen is present. First some 15 minims of the urine is acidified in a test-tube by a citric acid paper, then a ferro-cyanide of potassium paper or a potassic mercuric iodide, or iodo-cyanide paper, or a sodium tungstate paper is added, and the test is finished.

A handsomely got up exhibition of new drugs and preparations was shown by Messrs. R. Sumner & Co., of Liverpool. It is to be understood that such drugs as jequirity, convallarin, &c., were to be found in all these collections, so they need not be catalogued. On Messrs. Sumner's stand we noticed a simple idea, but a useful one, a "pulv. anthem c. papav." for poultices and fomentations.

Liverpool was further represented by Messrs. Clay & Abraham, whose varied collection included several useful specialties which the firm ought to make better known, such, for instance, as their "mist. cinchona flavæ" and their "magnesia milk" (mist. magnesie c. saccharo), a preparation specially suitable for children.

Mr. Huggett, chemist, Liverpool, showed in action his medicated sanitary pastilles for fumigation, whereby most successfully vapours of eucalyptus, carbolic acid, thymal, iodine, &c., can be diffused through an apartment.

Three firms mainly represented the pharmacy of the metropolis. Messrs. Allen & Hanburys made a splendid display, and gave abundant proof of the real improvements they have effected in many branches of the art. They directed particular attention to a combination of their tasteless castor oil with glycerine, in which form it said the action of the castor oil is much increased, rendering it necessary to give only a quarter of the dose. Pardons have been conferred for services to the community smaller than this. Their medicated jujubes were freely tested, and the opinion of

their suitability for the administration of certain medicines, especially such as varnim, chlorate of potash, carbolic acid, &c., was readily endorsed. A series of the oleates, and specimens of numberless other drugs were included in this collection.

Messrs. Corbyn, Stacey & Co., as usual, had a most effective exhibition of general pharmacy and of their own specialties. The "Notes on Drugs, Chemicals, and Pharmaceutical Preparations," issued periodically by this firm were distributed, and form a most useful *cade mœcum* for all who desire to be informed respecting new medicines. Besides all these, the firm exhibited a series of the new "abstracta" of the United States Pharmacopœia, a form of preparation, however, which we hardly think is likely to secure permanent popularity here. A very ingenious contrivance among Messrs. Corbyn's exhibits was the simple "inhalation-respirators," constructed according to the instructions given by Dr. Burney Yeo. These are not quite novel, but we think they have not been before mentioned in this journal. They are simply little wire cages, which can be worn like a respirator, in which is packed a piece of sponge, which can contain such vaporisable substances as camphor, carbolic acid, iodine solution, sulphurous acid, turpentine, or other medicament which it is desirable to apply to the throat.

Messrs. Savory & Moore had an interesting display. They made peptone enemas, peptone suppositories, and peptonising apparatus their *cheral de bataille*. There must be many cases where the enema and the suppositories of peptone must be of great service. These, with the other digestive agents to which Messrs. Savory & Moore have for so many years devoted attention, were an important study. This firm also showed the United States "Abstracta," their gelatine discs for the convenient and safe administration of powerful medicines, and a number of other medicines.

Messrs. James Woolley, Sons & Co., of Manchester, among an extensive collection, made leading articles of boracic acid in various forms, and especially in the form of the sanitary rose toilet powder, which we have previously described. They also directed attention to a preparation previously introduced by them, namely, the "Pil. Maranhin (Woolley)," a combination of a sodium compound with the active resin acids of copaiba, in accordance with a process suggested by Mr. Siebold. Each pill represents about 10 minims of copaiba balsam, and two or three are given three times a day.

Messrs. Mottershead & Co. showed the series of digestive preparations which, under Mr. Benger's name, and with Dr. William Roberts's endorsement, have of late acquired considerable reputation as natural digestive ferments. These included the liquor pancreaticus and the liquor pepticus (Benger), Benger's peptonised beef jelly, and Benger's self-digestive food.

Messrs. Southall Bros. & Barclay, besides the numerous pharmaceutical preparations, surgical dressings, and new remedies, for which they have so high a reputation, submitted a series of "non alcoholic tinctures" in which the drug had been exhausted by means of compounds of glycerine or other means, instead of by alcohol. There is no doubt there is a considerable future for this temperance pharmacy.

Messrs. Wyleys & Co., of Coventry, among many other articles of medical and pharmaceutical interest, directed attention to a convenient method of providing ergotin (Bonjean's) for hypodermic injection. This drug is now in some practice administered in almost every case directly after the expulsion of the placenta, and it is said with excellent results. But it will not keep in solution, except with glycerine, and that is liable to produce local irritation. Messrs. Wyleys, therefore, supply tubes containing 5 grains of ergotin, with a graduation up to 20 minims. This makes the ordinary dose, and thus the solution can be made at the moment it is required.

Of course, Messrs. Richardson & Co., of Leicester, were present, and showed their very numerous preparations, many of which are of great use to the busy practitioner, who wishes to have reliable preparations in elegant and convenient form.

Among other dietetic preparations were those of the Aylesbury Dairy Company, koumiss, artificial human milk, peptonised milk, &c.; Loefflund's pure bordeum, and its compounds, with pepsine, iron, or lime; Brand's numerous essences for invalids, and essence of malt; maltine, and

the beef peptonoids exhibited by the Maltine Manufacturing Company; Lloyd's universal food; Mellin's food; Feltoc's "specialité," lime juice, &c.

America, as we have stated, was very handsomely represented. Messrs. Parke, Davis & Co. thought the occasion important enough to send a number of cases specially from Detroit, and to distribute volumes giving in detail therapeutic, botanic, and other details respecting a large number of new medicines. This house does not aim to push particular medicines, but has organised a system of providing supplies of any new medicines heard of in any part of the world, giving samples to medical men who desire to try them, and publishing the results, whatever they may be. The Cascara sagrada, introduced a few years ago by Messrs. Parke, Davis & Co., seems to have acquired much favour in this country of late as a valuable laxative medicine. Messrs. Burroughs, Wellcome & Co. submitted their numerous specimens of elegant pharmacy, many of which they seem to have established firmly in this country and in the colonies. These included Fellows's Syrup of the Hypophosphites, Wyeth's Tablets, McKesson & Robbins's pills, Burroughs's Hazeline, &c. Messrs. Sciefflin & Co. showed, through their agents, Messrs. Allen & Hanburys, their beautifully-made soluble pills and granules, and Messrs. Scott & Bowne, of New York, offered sample-bottles of their cod-liver oil emulsion.

Besides these, Messrs. Arnold & Sons, Mayer & Metzler, Weiss & Wood (Manchester), White & Wright (Liverpool), Picard & Curry, and Evans & Wormald exhibited surgical instruments.

A good many of the doctors availed themselves of the invitation of Messrs. Evans, Sons & Co. to pay a visit to their laboratories, where all sorts of pharmaceutical operations on a very large scale were explained by Mr. Conroy. The same firm very politely invited the representatives of the drug and pharmaceutical firms who were at the exhibition to dine with them on the evening when the medical men had their dinner, to which, of course, mere pharmacists were not admitted. This act of kindness on the part of the Messrs. Evans was much appreciated.

CHEMICAL SOCIETY.

June 21.

DR. W. H. PERKIN, President, in the chair.

The following gentlemen were elected Fellows:—G. S. Bowler, C. Beringer, T. H. Coleman, A. Esilman, H. E. Harrison, C. Hulke, H. Heap, B. Hobbs, C. T. Heycock, W. J. Livingston, B. P. Lascelles, H. R. Mill, M. F. Purcell, J. E. Richardson, F. G. Roberts, W. R. Refel, A. Smith, E. H. B. Stephenson, A. W. Soward, A. H. Samuel, D. Wilson, R. Williams.

The following papers were read:—

"On Evaporation in Vacuo," by H. McLeod. The author has contrived several forms of apparatus, and in the present paper describes two. One in which the water was evaporated in a glass dish with ground top, at temperature not exceeding 50°, 50 c.c. evaporated in two hours; A. Körting's water-pump was used to obtain the vacuum. Instead of the dish a test-tube or a combustion-tube may be employed. In the second form of apparatus sulphuric acid was allowed to trickle down the tube into which the aqueous vapour passed, and thus the use of a condenser was avoided.

"Note on a Hydrocarbon and some Substitution Derivatives from Camphor," by H. E. Armstrong.

"On the Preparation of the Pentathionates," by G. S. Shaw. The author has reinvestigated this subject because Professor Spring states, in Liebig's "Annalen," that he was unable to obtain pentathionates by using the method described by V. Lewes. The author completely confirms the result obtained by Lewes, and has obtained beautifully crystalline salts, in which the ratio of potassium to sulphur was as 2 atoms to 5. A note is appended to the paper by Watson Smith.

"On the Decomposition of Ammonium Nitrate: an Investigation into the Rate of Chemical Change," by V. H. Veley.

"Note on the Action of Allylic Iodide upon Phenol in the

Presence of Zinc or Aluminium Foil," by P. Frankland and T. Turner. Ortho propyl phenol was obtained.

"On a New Gas-burner for Heating Combustion-tubes," by W. Ramsay.

"On a Bye-product of the Manufacture of Aurin," by A. Claparede and Watson Smith. When aurin is prepared from phenol, oxalic acid, and sulphuric acid, some quantity of white crystals appears on the lids of the aurin-pots. These were examined by the authors, and were found to consist of a phenyl ortho oxalic ether.

ALPHONSE KARR ON TOBACCO AND BOTANISTS.

THE article on tobacco in the last number of this journal recalls a pleasant chapter in Alphonse Karr's "Journey Round My Garden," a book written in a strain of humour which French authors, with all their wit, can seldom attain to. Humour is rarely translatable, and our attempt to render it cannot do the writer justice.

"Henbane, stramonium, and tobacco," he says, "are all comprised in one family of poisonous plants. Tobacco is, perhaps, less poisonous than stramonium, but more so than henbane. It is a handsome plant, some 6 feet high, with rich green leaves, amid which are bouquets of rare flowers of a graceful form.

"For a long time tobacco flourished solitary and unknown in some corner of America. We got it from the savages of that land, who used it on great occasions for the intoxication of its smoke, and we gave them brandy in return. It was by this amicable interchange of poisons that the relations between the two worlds commenced.

"The earliest snufflers of tobacco were at first mocked at, then persecuted. James I. of England wrote a book against them, which he called 'Miso-capnos.' A few years later, Pope Urban VIII. excommunicated those who took snuff in church. The Empress Elizabeth seems to have thought that the penalty of excommunication did not go far enough; she therefore commanded that the beaules should confiscate the snuff-boxes of those who tickled their noses during divine service. Amurat IV. forbade the use of snuff under penalty of having the nose slit.

"No useful plant would have resisted such a series of attacks.

"Suppose that before the introduction of tobacco someone had said: 'I want to invent a voluntary tax which shall add some millions annually to the State revenues. It must be on something which we can get nearly everybody to buy. Now there is a certain poisonous plant growing in America. We can express from its leaves an empyreumatic oil, one drop of which will cause an animal to die in horrible convulsions. Let us bring over this plant; chop it up, or powder it; sell it very dear; and tell people to thrust the powder up their noses.'

"You will pass a law to force them to do so?"

"Not at all; I am proposing only a *voluntary* tax. As for the chopped up leaves, we will tell the people to breathe the smoke of them."

"But that will kill them?"

"No; they will suffer somewhat, in consequence, from pains in the stomach, giddiness, colic, spitting of blood, and some pains in the chest; but they will get accustomed to all this. Man is more a creature of habit than is believed. In fact, he has lost all his nature and has nothing but his habits left. He is like this old knife, which has had its blade renewed three times and its handle twice. By dint of continually smoking, men will find these sicknesses, pains, and cold sweats gradually diminish, and at last these inconveniences will only return when the tobacco is extra strong, or the smoker is out of health. Those who snuff will sneeze, and will lose their delicacy of smell by the perpetual irritation of their noses."

"Then the plant has a very attractive smell, I suppose?"

"On the contrary, its smell is very unpleasant. But we will sell it very dear and we will return the business as monopoly."

"My good friend," the interlocutor would reply, "no one is likely to dispute the monopoly of such an article with you. I should advise you, instead of going to America for this poisonous plant, to open a shop and commence the sale of

kicks and blows with a stick. You would get quite as many customers.'

"That is what any ordinarily intelligent person would have supposed; and he would have been entirely wrong. The kings of France, instead of satirising tobacco, confiscating snuff-boxes, or slitting noses, took up the business in earnest, and pushed it by presenting snuff-boxes to poets with their portraits set in diamonds. Those small inventions brought them back I don't know how many millions per annum.

"Fayon, one of Louis XVI.'s physicians, prepared a paper to read in the schools against tobacco. He was ill when the time for reading it arrived, and a friend read it for him—taking a pinch between each paragraph.

"Santeuil the poet died suddenly after drinking a glass of wine in which some tobacco had been infused.

"The potato had more trouble to get established in France than tobacco had."

It may be permissible, while the book is in our hands, to extend this article a little by adding a sketch of the chapter on "The Savants." It must be understood that the author, finding himself unable to accompany a friend on a voyage round the world, professes to console himself by looking a little closely into the wonders which lie around him, and to narrate his experiences in a series of letters to a friend. So one wet day, when he is not able to go out, he proposes to spend his morning in an investigation "of a species as curious as any that either you or I are likely to meet with in the course of our travels; I mean the savants—

"You remember those happy days of childhood, full of gaiety, of games, and of affection, and how we were too soon handed over to pedants to weary us at ten years of age, so as to make us wearisome for the rest of our lives.

"Recreation is the true education of that period: it makes us healthy, vigorous, active, and brave. Why should children be compelled to burden themselves at that age by learning things which may or may not interest them at an age they may never reach? Why should they be forced to admire what they cannot understand? Why should one fixed literary education be hammered into people who are afterwards to occupy themselves under all sorts of human conditions? And why should so much of these literary labours be taken up with the study of the only two languages which are no longer spoken?

"Just as the pedants treat children, so do the savants treat everything they touch. They make everything wearisome, dry, stiff, and stilted. Flowers they starch.

"See the savants enter a smiling meadow, or a perfumed garden. Listen to them, and you will henceforth hold the meadow and the garden in horror.

"First of all, they have constructed three barbarous languages to describe the graceful flowers; then they have combined these to make a language more barbarous still; and then every individual savant has contributed his little share of new barbarism, just as in ancient times every traveller had to add a pebble to the heaps of stones by the wayside as he passed.

"Let me write down here, just as they occur to me, some of the words of the language made by these gentlemen, and then try if it is not sad to see the flowers, those 'joys of the eyes,' as the Greeks called them, so treated. I will not invent a single word, and those that I give will be only a very few of the category used by these gentlemen:—Mesocarp, hilum, micropyle, homotropous carypsopsis, achene, malvacee, echalaza, rubiaceae, strobilus, infundibuliform, enneandria, angiospermia, geraniaceae, quinquelocular, monocious, colcorhiza, balaustion, rhizome, geniculate, dichotomous, stoloniferous, ligule, aciculate, sanguisorbee, pinnatifid, terebinthaceae, polyandrous, pericarp, spathe, glume, triquetrous, suberosus, ensiform, ribesoides, lyrate, nonocspalous, turbinate, hypocateriform, urceolate.

"Is it enough? You had better be content with these, for here are plenty more to quote from. Besides, the savants invent new ones every day. And among all I have given you there is not the name of a single flower.

"As for the names of flowers, see those bunches of mignonette at the bottom of that old wall. Linnaeus, who, although he contributed his share to the general barbarism, had some lingering affection for flowers, described the perfume of mignonette as ambrosial. Make haste to breathe the perfume, and to examine the yellow spikes of the plant, for

there are a couple of savants coming. The charms of the mignonette will vanish. What are its odour and colour? Botanists recognise neither of these. They are two luxuries, superfluities, which God in his prodigality has wasted on flowers, but which the savants have taken away from them. What would become of creation if the savants did not keep it in proper order?

"Savants would have all flowers like those which they have dried in their herbarium, those horrid cemeteries where flowers are buried with portentous epitaphs. Now one of the savants looks at the mignonette and tells you:—'This is a caper of the family of the capparides, without stipules. The petals of the corolla alternate with the sepals of the calyx; stamens hypogynous, pistil stipitate, and formed by the union of three carpels, the ovules attached to three trophosperms, seeds often reniform, and with an endosperm.'

"'All very fine!' cries the other savant; 'but the mignonette is not a caper. According to Lindley it is an euphorbiaceae, but in my opinion it is a cistus. The calyx is a common involucre, and very globular, rarely unilocular, seeds rolled in a fleshy endosperm.'

"'I recognise the endosperm,' replies the first savant, 'and I admit that it is fleshy; but I still maintain that the mignonette is a caper. And further, I say that a man can have very little notion of botany to put it among the euphorbiaceae.'

"It would be too unkind to the mignonette to report this discussion further. Let us hear a savant describe another flower. He takes the marshmallow, a little creeping plant with round leaves and rose flowers, which is almost hidden by the grass. Listen:—

"'Calyx monosepalous, anthers reniform and unilocular, pistils composed of several carpels often verticillated, fruits forming a plurilocular capsule, which opens into as many valves as there are monospermous or polyspermous cells, seeds generally without endosperm, with foliaceous cotyledons.'

"Of course you do not understand any of this, but try to remember the words for a moment. Then ask the savant to describe to you the baobab. This is the biggest tree in the world. At a distance it looks like a forest, its trunk often measures a hundred feet in circumference. There is one in Senegal which is said to be 6,000 years old. This is the savant's description of the baobab:—

"'Calyx monosepalous, anther reniform and unilocular, pistils composed of several carpels, often verticillated, fruits forming a plurilocular capsule, which opens into as many valves as there are monospermous or polyspermous cells.'

"'But stop, savant. You say you are speaking of the marshmallow, or at least that is exactly how you described the marshmallow just now.'

"'Marshmallow, or baobab,' replies the savant, 'they are the same to us. The dignity of science does not allow us to concern ourselves with those differences which strike the common observer.'

"So these savants see nothing of size, colour, odour, or taste. They will give ten names to one plant, while they call the cherry, the plum, and the apricot trees all *prunus*, the almond and the peach are both *amygdalus*. What do they know of the Easter daisy or the forget-me-not? The first is an *aster*, and the second has been faintly named the *myosotis scorpioides*."

M. Karr often recurs to his foes, the savants, and recounts the insults they have piled on his beloved flowers. But as so many of those who will read these lines are botanical savants themselves, we will not venture to pursue further his examination of "this species."

SOAP for lin. sapon. co. is made by Mr. S. Hammer, of Sacramento, U.S., by dissolving 6 oz. caustic potash in 2 pints of water, and heating the solution with 2 pints of castor oil until it forms a transparent mixture, not milky. Stir it. Then add a saturated solution of 8 ozs. of chloride of sodium, whereby the soap is changed to a soda-soap. Stir until the mixture has begun to cool. Then allow it to subside for a day, and decant off the liquid portion. Cut in pieces and dry for use.

ACACIA.

FROM Dr. Squibbs' review of the United States Pharmacopœia, published in his *Ephemeris*, we take the following:—

The gum arabic from which acacia is selected comes chiefly from Kordofan, down the Nile, in sacks, to Cairo, Alexandria, or Trieste. In this original condition it is called gum arabic "in sorts," that is, unsorted or unseparated. The fragments are of all shades of colour lighter than a very dark amber, and are contaminated with bark, dust, &c. At the three points mentioned the gum arabic is picked—women, children, and cripples being employed in picking it, and at Trieste especially, the picking constitutes quite a large and important industry. This picking separates the fragments by colour and by freedom from adhering bark, &c., into about five grades usually, and these are called, technically in commerce, "first picked," "second picked," "third picked," and so on, and these grades are then fitted for their special uses chiefly in the arts for "sizes" and "bodies" and in confectionery. The first and second picked are very nearly colourless, and only differ in colour by a shade or two, but the second picked is not so free from adhering specks of bark. The first three or four of these grades come into the markets in cases containing about 136 kilogrammes or 300 pounds each. The other grades come in bags. Of these grades the first picked only should constitute the acacia of the pharmacopœia, and to this grade only does the name acacia properly belong. It is, therefore, not "gum arabic," but is "acacia," selected by picking as the best and purest part of gum arabic. It is true, however, that this grade is rarely bought for medicinal uses, the second and third picked, which are considerably cheaper, being generally used. If not seen together, few buyers can distinguish between "first picked" and "second picked," so that sellers by keeping the "first picked" out of their assortment are easily able to sell second for first, and so on down.

Other varieties of gum arabic come down the Nile which are well known in commerce, but the sources of which are not well determined. They are not distinguishable in appearance from the gum just mentioned, and go through all the process of picking exactly as do the other gums, and they appear in the markets together, and in "first hands," that is, in the pickers' or in the large importers' hands, the cases are seen side by side, but after leaving "first hands" the distinctions between these and true gum arabic are commonly lost. These gums, are, however, of inferior quality, and are sold at a lower price. A few years ago the difference in price amounted to 20 to 25 per cent., but of late the true gum arabic has fallen somewhat in price, and now the difference is hardly greater than 10 per cent. These inferior gums have been variously called "Gum Sennaar," or in the market "Senare," "Ghezireh" and "Gedda," probably from the districts in which they are collected; the latter name being the most common, and now pretty generally applied to the whole class of these inferior gums.

"First picked arabic" and "First picked Gedda" are often undistinguishable even by experts, unless seen together and closely compared, and hence the cheaper is often substituted for the better and dearer gum, and still more frequently is mixed with it as an adulterant. The chief characteristic of these poorer gums is a sour smell, which, though easily recognised in the "sorts" or in the lower grades, is by no means easy in the first and second picked. Generally, however, by brushing off the surface gum from the top of a case, and plunging the hands down so as to bring up a double handful from near the middle of the case, the sour odour can be detected. But if 10 or 20 per cent. of the Gedda only is mixed with the true gum, it is almost impossible to detect it.

The inferiority of these gums is that they make a thinner and poorer mucilage than the true gum, and a mucilage which chauges and sours sooner. The expression in the arts and in confectionery is that it "does not go as far,"—"does not make as fine a stock," and causes loss by spoiling more easily. The inference drawn by the writer from these circumstances is that these gums come from districts which are subjected to showers, or to some form of dampness which is sufficient to start a slight fermentation in the gum itself. This hypothesis is strengthened by the circumstance that a

bag of fine gum which accidentally gets wet, soon develops this sour smell, while others of the same lot will have the natural freedom from all smell, or have the very faint, clean, sweet smell.

The uses of acacia in medicine require it in two forms, namely, in solution and in fine powder. The solution is used in various ways and for many purposes, and is official in the forms of a mucilage and a syrup. The mucilage contains 34 p. c. of acacia, and the syrup about 8 p. c. The solutions do not keep well, especially when there is any admixture of Gedda in the acacia, or when there is the least quantity of old solution left to start the souring of the new, and therefore they should always be freshly made. To make a good solution promptly not only requires some skill, but also requires that the acacia be in a proper condition. Taking the acacia in its official condition the solution of the fragments is a very slow process. If it be rubbed up in a mortar enough of it goes into fine powder to make the whole clog together, and then again the process is tedious and troublesome, whilst if fine powder be taken there will be still more difficulty and the loss of more time.

Many years ago the writer made a series of trials to determine the condition best adapted to making easy and rapid solution, and the result was that a granulated acacia in the form of a coarse powder free from any fine powder was all that was needed, and a "granulated acacia" has been supplied to the markets ever since, and is now in common use. This is made by coarsely grinding the first picked true acacia until it all passes through a No. 50 sieve. The finer particles are then all taken out of this coarse powder by careful and thorough use of a No. 80 sieve. This leaves a very uniform, clean, coarse powder, which constitutes the granulated acacia. That which passes through the No. 80 sieve is again ground in a finer mill and passed through bolting cloth No. 120, and constitutes the powdered acacia, adapted to a different class of uses. The granulated acacia is so promptly soluble that it cannot be washed with cold water, as directed by the Pharmacopœia under the head of "Mucilage of Acacia," nor is the washing needed, as the mucilage will be opalescent in either case and not very different. It is, however, true of acacia, as of other drugs, that the grinding does render the solutions more opalescent, because the particles of bark, &c., which are insoluble are ground up very fine, and because the attrition grinds off fine particles of the mill surfaces. From these circumstances it comes that the finer the powder the more opalescent the solutions made from it.

BICHLORIDE OF METHYLENE.

MESSRS. ROBBINS & CO. have published a reply to the statement made on a French authority, that methylene, supposed to be of their manufacture, proved to be a mixture of chloroform and alcohol.

"To that statement," they say, "we give a most emphatic denial, and say that by no admixture of chloroform and alcohol can any preparation be made possessing the same chemical qualities and other characteristics of methylene.

"A mixture of chloroform and alcohol can be easily detected by simple distillation; by this means the alcohol can be, to a considerable extent, separated from the more volatile chloroform, giving a higher boiling-point and low specific gravity. By treating methylene in a similar way and comparing results, the difference in the general behaviour of the two compounds is manifest.

"When Dr. Richardson introduced methylene to the profession in 1867, we adopted for making it the only practicable method known, as given in some of the chemical works, viz., by the action of metallic zinc on a mixture of chloroform and ethylic or methylic alcohol. On application of heat, strong chemical action takes place, with formation of chloride of zinc from the chloroform, and oxide of zinc from the alcohol, proving clearly a chemical change in the liquid.

"The process, although apparently simple, is not without difficulties in practice; the zinc, so readily attacked at first, soon becomes protected by the oxychloride, making a long-continued action more difficult to sustain, thus causing a wide difference of temperature from the first to the last

stage of the process. These difficulties were so great that Dr. Richardson, making the first specimen with which he experimented, told us that it had taken him ten days to produce 15 oz. of the fluid.

"Long experience has enabled us to obtain more uniform results. We now distil the methylene at about 127° to 128° Fahr., and, as a rule, never varying more than 3° from the first to the last part of the distillation.

"We have constantly invited medical men to see the process in operation, and shall be happy to do so again to anyone in the profession who may take an interest in the matter."

THE CHEMISTRY OF PACKING.

MR. G. W. WIGNER, F.C.S., F.I.C. (President of the Society of Public Analysts), recently read a paper before the London section of the Society of Chemical Industry, in which he pointed out the importance of proper packing in the case of various substances imported and exported. Giving instances of unscientific packing, he said:—

Oysters have been imported into this country in barrels made of wood containing a very large proportion of tannin, with results which can be better understood than appreciated. The iron contained in the liquor has produced a very noticeable proportion of ink, and the oysters themselves have become converted into a poor but certainly novel kind of leather, while it is not an unknown thing that tinned fish and tinned acid fruits have been packed in vessels, in which lead predominated over tin to a very marked extent.

Among the imports which we as a nation receive there are many substances not only of delicate odour but of strong and yet delicate scent, the character of this scent or perfume being such that it is practically impossible to prevent it from being communicated to neighbouring packages in the hold of a vessel. Not only so, but we manufacture scents of certain kinds in very large quantities and export them to other countries, and it is well known that the packing of these is attended with considerable difficulty, and that they are only accepted as freight on somewhat exceptional terms. In what may be considered the worst of these cases stoppered bottles, of course, come largely to our aid, but if the stopper of a bottle has been ground in with either emery or sand, it is, I believe, a matter of absolute impossibility to make it air-tight. In goods for home consumption leaden tubes or cases or capsules are frequently used, but the difficulty of making them air-tight is even greater than in the case of the bottle.

Where goods of an oily or greasy character have to be packed, and the escape of the oil may to a considerable extent be attended with the risk of fermentation or rancidity, grease-proof paper or some such packing has to be used, and up to the present this paper is unsatisfactory, unless very costly kinds are used. In considering the question of export goods, we have, at the outset, to face the fact that goods stowed on board ship have necessarily to be packed in the hold, and to remain there for weeks, or even months, and that wherever the voyage may be to it is most certain that the temperature in the hold during early the whole time is far in excess of our ordinary English atmospheric temperature. To this must be added that the atmosphere of the hold of a vessel is saturated with moisture, and very frequently *supersaturated*. Bilge water exists in small quantities in every vessel. So that at night when a slight fall of temperature is likely to occur, moisture in the form of dew or cloud would be produced and deposited upon the goods. This is not theory only, but a fact which has been noted in numbers of cases. This moist air acts rapidly and energetically upon metallic bodies, and is the most active agent in setting up decomposition in organic bodies.

It is notorious that a large proportion of tinned goods which come to this country are injured so as to be rendered unsaleable, but it is not equally well known that a large number of those which are actually sold are really in a condition which renders them unfit for food. It very frequently happens that when tinned fruit or fish or meat goes by the tin becomes what is technically known as "blown." The "blown" condition is the expansion or bellying out-

wards of the ends and sides of the tin, and is produced by the liberation of gas within the tin itself, which should have been almost in a vacuum state. In some cases the gas which causes the "blown" state is produced by the decomposition of the tinned substance, and many tins are absolutely burst by the force with which this gas escapes. But in other cases a small amount of free acid, or an acid salt present in the substance itself, or generated by its decomposition, acts upon the iron when it is imperfectly coated with tin, or upon the lead if the proportion of lead in the tin is too high, and gases are liberated which at once set up an objectionable state in the contents of the tin, and bring about its destruction, either by bursting the tin by the internal pressure of the gas, or perforating it by the action of the acid upon the uncovered points, which are necessarily those most easily affected by the acids. Accompanied by this comes another and perhaps equally serious result. The tin, some of the iron, and the lead contained in the tin are dissolved, and the contents of the can become contaminated with these metallic substances. It is uncommon to meet with a sample of tinned salmon or lobster which is in a really good condition, viewed from a chemical standpoint, and acid fruits, such as peaches, apricots, and plums, seldom remain good for the second season. To obviate this result various methods have been proposed. In many cases the interior of the tin has been lacquered or coated with some supposed impervious varnish, but this more frequently proves injurious than beneficial. It is scarcely possible to manipulate a tin which has been varnished without cracking the varnish to some extent and producing either a slight separation of the film, or a pin hole. When this is the case, the whole of the action of any acid contained in the contents of the tin is concentrated on the one spot, and the destruction of the tin is only a question of time, and probably a short time. Another attempt was made by coating the iron with chemically pure tin by electro-deposition, in the hope that by this means any microscopical holes would be covered. In practice this did not work any better than the other plan, because the solder still furnished a second metal, so that galvanic action was set up inside the tin to as great an extent as before. In the Paris laboratory hundreds of samples of tinned foods have been examined, and the almost universal presence of both tin and lead in all classes has been strongly remarked upon.

Tea is remarkably prone to acquire any external odour from the air in which it is placed. It is, of course, well known that tea is always packed in cases which are lined with lead. In the case of China teas the lead is tolerably pure, cast into sheets by pouring the melted metal on to one stone and dropping another stone on the top of it. This primitive method produces a sheet of somewhat singular uniformity in thickness, weighing about 2 lbs. to 3 lbs. to the square foot. Indian teas are packed almost exclusively in lead which is sent out from this country. It is not pure. It contains an admixture in most cases of tin, and sometimes a small proportion of antimony. These are added to enable the lead to be rolled much thinner, and the weight of it is not more than $\frac{1}{4}$ lb. to the square foot. Before any injury can occur to the tea itself this lead must be either destroyed or perforated, or at any rate it must not be in an air-tight condition. It is obvious that, except in cases of neglect, all such goods would be packed in wood which was at any rate fairly well seasoned. Until recently only one kind of wood has been used for packing tea. This is a species known as "toon" wood, and every one who has ever seen a tea-chest made of it must be familiar with its general characteristics. It is easily worked, does not require to be stacked long to season, is free from smell, and not very liable to absorb water. The cases of injury with this wood have been of only occasional occurrence, and appear to have been determined much more by accidental circumstances than by even an occasional failure in the character of the wood itself. But of late years the supply of "toon" wood has run short, the Chinese have had to resort to other woods, and in Assam woods are being used at random. The rest of Mr. Wigner's paper was devoted to details of injury to teas, resulting, in his opinion, from the wood of the cases absorbing moisture and causing the lead envelope to be attacked, white lead being often found in larger or smaller proportion on the wood next to the lead.

LIME-WATER.

BY THOMAS MABEN, HAWICK.*

EVERY apprentice has made lime-water, and it seldom occurs to any that there is the slightest difficulty in turning out a perfect article. "Given plenty of slaked lime and good water, how could there be anything else but a perfect article?" is the question that rises to the lips of many an astonished reader, and it is with a view of dispelling some crude notions regarding this, the simplest of all galenic operations, that this note has been written. First of all, there need be no doubt as to what a perfect lime-water is. It is simply a solution of calcic hydrate in water, containing .56 grain of calcic oxide in each fluid ounce, at least, the British Pharmacopœia requires it to be of this particular strength. Provided the laboratory is kept at a temperature of (or under) 60° Fahr., at which the British Pharmacopœia directs all estimations to be taken, there is no difficulty in preparing a perfect article, it being of course understood that the directions of the British Pharmacopœia are strictly adhered to. As a matter of fact, however, it not unfrequently happens that lime-water very far from perfect is freely supplied to that most patient of all animals—the unsuspicious British public.

The writer has estimated many samples of lime-water purchased in various parts of the country, and the general result is certainly far from creditable to the profession. One might naturally expect that while in a few cases the strength might happen to be as low as .45 grain per oz., it would very rarely be under .5 grain. If, however, it is found to be frequently under this latter figure, one could only conclude that this state of things arose either from downright ignorance, or gross, nay, culpable carelessness. What then do we find regarding the samples already referred to? (The writer purposely refrains from indicating the localities from which these were obtained, it being sufficient to state that they were all purchased as in the regular course of business, and examined within two days thereafter.) Of the total number—

18 per cent.	were of full strength, containing .56 grain CaO per fl. oz.
23 "	contained between .5 and .55 grain CaO per fl. oz.
50 "	" " " " " " " "
12 "	" " " " " " " "
17 "	" " " " " " " "

Two of the samples were of the disgracefully low strength of .3 and .302 grain respectively, while no fewer than 59 per cent. of all the samples contained less than .5 grain CaO per oz. The writer has never met with any lime-water containing less than .3 grain, but it will be fresh in the minds of many readers that a public analyst recently certified that a given sample contained the miserably low amount of .1 grain. How anyone with a conscience can call this lime-water seems passing strange.

The question now arises, How is it possible that there should be such differences in the commercial quality of this article? The British Pharmacopœia process is simplicity itself, and, if adhered to, ought in nine cases out of ten to turn out a thoroughly good product. The directions are as follows:—"Take of slaked lime 2 oz., distilled water 1 gallon. Put the lime into a stoppered bottle containing the water and shake well for two or three minutes. After twelve hours the excess of lime will have subsided, and the clear solution may be drawn off with a syphon as it is required for use, or transferred to a green glass bottle furnished with a well-ground stopper." There are four distinct elements which must be taken account of if this process is to be a success, and these are the lime, the water, the method of preservation, and the temperature, and a few remarks on each of these may not be out of our way. Calcic hydrate, or hydrated oxide of lime, consists of CaO combined with H₂O, the formula being CaH₂O₂. It is prepared by pouring on burnt lime as much distilled water as is required to slake the whole. The large amount of heat generated in the process is caused by the rapidity with which combination between the lime and the water takes place. Calcic oxide is never obtained quite pure, and hence the hydrate is also always more or less

contaminated, the foreign bodies present being sulphate and chloride of lime, as well as salts of several other metals, such as alumina, iron, magnesia, &c. The usual method employed to get rid of these impurities is to wash the lime thoroughly with water, which may be accomplished by shaking up the mixture of lime and water, and pouring off the clear liquid when the lime has subsided, repeating the process until the clear liquid, when slightly acidified with nitric acid, fails to give precipitates with argentic nitrate and basic hydrate. Were this precaution not taken, the lime-water would at first be slightly contaminated with impurities, but these would in the nature of things shortly disappear. A much more fertile source of error lies in another, and it is to be feared, often an unsuspected direction. Having slaked the lime it is of the utmost importance to keep it free from the air. The rapidity with which calcic hydrate absorbs carbonic dioxide when exposed to the atmosphere, is simply amazing, and if any reader of this paper is in the habit of slaking his lime in an old kizenge-tin of which the lid has gone amissing, and thereafter consigning the whole as it stands to the top shelf in the back shop, in the belief that being cheap stuff the lime deserves no better treatment, there need be little wonder that the analyst on coming round finds the liquor calcis to be lime-water with the lime left out. Carbonate of lime is much less soluble in water than the hydrate, though it is true that when undistilled water is used the Co₂ naturally present will dissolve a proportion of the carbonate, but even were it more soluble, a solution of calcic carbonate would not be lime-water. It is, therefore, of the first importance that calcic hydrate should be carefully preserved and the air as thoroughly as possible excluded; otherwise it will be little short of a miracle if the lime-water prepared from it is of the proper strength. It has been suggested by some that the lime should be slaked every time a fresh quantity of lime-water is made, in order the more effectually to guard against carbonate being present, but this involves much more time than the proprietors of small establishments can afford to bestow upon it; and further, the writer has fully proved by experience that if proper precautions are taken one slaking is quite enough to last for many months.

In addition to the lime, the water demands our attention. The British Pharmacopœia directs the use of distilled water, and it is needless to say that no other should be used. It is, however, believed to be not an uncommon practice to use ordinary water, the idea doubtless being that the one is as good as the other. This is certainly not the case, and only in the rarest possible circumstances should undistilled water be used. At the same time, we do not hesitate to say that in many cases ordinary water would produce a solution of British Pharmacopœia strength, but unless the water be of such standard purity as, for example, that of Loch Katrine with 2 grains of solids per gallon, or that of the Cumberland lakes with 4 grains, the practice is certainly reprehensible. Very few natural waters, more especially spring waters, contain less than 8 grains per gallon of solids, and even this small quantity has an appreciable effect on the solvent power of the water, so far as the lime is concerned. In most cases we might reckon on 25 per cent. of solids being carbonate of lime, and even making full allowance for the Co₂ naturally present, it would be quite a probable circumstance that 10 per cent. of the water would be saturated with lime, and if this were so, it would only require .5 grain of calcic hydrate to saturate the remaining 90 per cent. of each oz. In answer to this, it may of course be pointed out that the CaO would combine with the free Co₂, and that thus all the CaCo₃ would be precipitated, leaving the water quite free of lime, and in such a condition that it could take up its full allowance, so to speak, of calcic hydrate. It is, however, extremely doubtful whether calcic carbonate is so insoluble as to exert no influence on the further solvent power of water. The writer's opinion is that it is to the presence of CaCo₃, rather than the other salts, that we must look for the difference in the solvent power over calcic hydrate of ordinary and distilled waters. These considerations therefore make it quite clear that distilled water only should be used in the preparation of lime-water, even were this not expressly provided for in the Pharmacopœia.

The method of preservation, no less than the materials

* The substance of this article has been recently read at a meeting of the Hawick Pharmaceutical Association.

of preparation, has also a considerable influence on the strength of lime-water. By this is meant, that if it be the habit of the druggist to keep the lime-water bottle without a cork for example, or to have it only half full, it will not be possible for him to have the article of full strength. Again, if the bottle from which he supplies his customers is very large, i. e., over 40 oz., it will of necessity follow that the lime-water will have deteriorated long before he has reached the bottom, unless, indeed, the sale is particularly brisk: this result being due to the absorption of CO_2 already referred to, which goes on quite as rapidly in the solution as it does in the powder. The practice of the writer in the preparation of this article is as follows. Having slaked the lime, a quantity—say half a pound or thereby—is put into each of two half-gallon blue stoppered bottles. The lime is well washed and the bottles filled up with distilled water, well shaken and set in a cool place. The shop-bottle, an ordinary 40-oz. clear glass stoppered round, is filled by decantation or filtration from the two stock-bottles alternately, these being immediately refilled with distilled water. This is continued for two or three weeks, and then the lime is renewed as before. This process is quite satisfactory, the product being frequently tested and invariably found to correspond with the British Pharmacopœia standard (with certain exceptions to be presently referred to). The contents of the shop-bottle are also repeatedly examined, and in only the rarest instances has any deficiency been noted in the amount of CaO present.

There is another and very frequent source of difficulty, though the resulting variations in the product are not by any means so serious as those which are brought about by the causes already noticed. This consists in the changes of temperature, which not unfrequently produce a marked effect on the strength of lime-water. It has been already pointed out that the British Pharmacopœia recognises only one temperature for lime-water, viz., 60°F. , and states the solubility at that temperature to be .56 grain CaO in each fluid oz. (as a matter of fact, it ought to be a shade more, say .561, but the former is near enough for all practical purposes). Curiously enough, lime is one of the few substances in nature which are more soluble in cold than in hot water, and a very slight rise in temperature is sufficient to demonstrate this fact very clearly. It has been stated that a difference of ten degrees makes a difference of something like 10 per cent. in the increasing insolubility of calcic hydrate, i. e., whereas at 60°F. , the solubility is .56 grain per oz., it falls on reaching 70°F. to .504 grain; but this the writer thinks must be a mistake. So far as his experience goes, even 5 per cent. is over the mark, and we must go a long way up the thermometric scale if we wish to find a difference of 10 per cent. At the same time there is a considerable difference, even at 65°F. , and as on many of our summer days, not to speak of winter evenings, with their suffocating heat in the upper regions of ill-ventilated shops, the temperature goes much above 65° , or even 70° , it is sometimes next to impossible to supply a lime-water of British Pharmacopœia strength. Nevertheless, by judicious arrangements, the use of cellars and such like, even this may usually be accomplished.

Most of us know little of the antipodes pharmaceutically, save from the occasional letters of the correspondents of THE CHEMIST AND DRUGGIST in Melbourne and elsewhere; but this we do know, that in the "Queen of the South" the heat often reaches 90° in the shade, while in other less favoured districts the thermometer indicates a much higher temperature. What the effect of this on some drugs may be we cannot be quite certain, but we may feel pretty sure that the lime-water there cannot be so strong as the British Pharmacopœia requires it to be. But the difference is not so great after all, and it may surprise a good many decent druggists to learn that the majority of the samples of lime-water referred to at the beginning of this paper would not pass muster for the genuine article, even on the very hottest of Liverina days.

The solubility of lime at different temperatures has not, so far as the writer is aware, been thoroughly investigated, but his experiments go to show that the following are something like the figures at the lower temperatures. At 60°Fahr. , each ounce of water dissolves calcic hydrate equal to .56 grain CaO ; at 65°Fahr. , .54 grain; at 70°Fahr. , .539 grain; at 75° , .526 grain; from 80° to 100° , .52 grain,

and we require to go a long way up before the figures drop below .5.

The lessons to be learned from all these facts are sufficiently obvious, in so far as this particular preparation is concerned. It is imperative that calcic hydrate, and not a mixture of calcic hydrate and calcic carbonate, be used; it is essential that distilled water be employed; it is desirable that the stock-bottles be kept cool, and that as little air as possible be admitted into them; and further, that the shop-bottle be not placed in the path of the sun's rays, or on the higher shelves of badly-ventilated shops. If these things be attended to, we shall never again hear of lime-water prosecutions, and if the public do not recognise any difference in the value of the article supplied, the druggist will have this consolation, that he has a "conscience void of offence" so far as his lime-water is concerned.

PETTENKOFER ON CHOLERA.

THE following remarks by the German Hygienist Pettenkofer are interesting for their expression of views at variance with those of Professor Tyndall in his recent letters to the papers, and held by most authorities in this country.

The epidemic propagation of cholera is dependent not only upon the distribution of the infectious substance by intercourse and traffic, but equally (1) upon susceptibility of the locality in which the infection may happen to have been imported, and (2) upon individual susceptibility. A number of places, and even large cities, in spite of an importation of the infection, have again and again withstood any extensive dissemination of the epidemic. Some places exhibit a chronic susceptibility for the disease, which is the case in India, the birth-place of cholera, where the mortality of those inflicted varies with the season, or in other words, cholera assumes a deadly or mild form, according as the season is favourable or not for its development.

It is a mistake to suppose that the only source of the infection is the cholera patients themselves, or what they have touched or worn. Doctors and nurses in cholera hospitals do not as a rule catch the disease, whereas on the other hand an outbreak of cholera has often been observed in places where it was proved that no contagion had taken place. This was the case in Malta in 1865. This little island, from the moment the outbreak of cholera was telegraphed from Alexandria, was placed under a most vigilant quarantine, which went so far that any persons from Malta who were obliged to communicate personally with the ships in quarantine (lying off an island isolated from Malta itself) were not allowed to return to Malta. In spite of this extreme vigilance, cholera broke out in Malta with a severity neither greater nor less than in other years.

Cleanliness of body, houses, and streets, is the best preventive of cholera. A chronic disposition for cholera depends a good deal upon the drinking-water.

Differences in age, temperament, bodily condition, &c., have a great influence on individual susceptibility for most diseases and epidemics, and more especially cholera. The chief thing during a cholera epidemic is to avoid any diet likely to cause diarrhoea, and should an attack of simple diarrhoea occur not to neglect it, but at once to call in medical advice.

There is no great danger in nursing a cholera-patient when removed from the infectious place, since not from the patient but in the place lies the danger of an infection.—*Neue Rheinisch Kreuz Zeitung.*

To prevent mould on the top of glasses of jelly lay a lump of paraffin on the top of the hot jelly, letting it melt and spread over it. No brandy paper and no other covering is necessary. If preferred, the paraffin can be melted and poured over after the jelly is cold.—*Scientific American.*

To detect alcohol in oils, the *Scientific American* recommends to put some oil in a slim glass tube eight or ten inches in length, closed at one end, and as large as the finger. Mark the exact measurement of the oil, then add two or three times as much soft water, and shake well for a few moments. When it has settled, in an hour or so, the water will have absorbed the alcohol from the oil, which will show proportionately below the line first fixed.

PHOTOGRAPHY.

*Paper read before the Chemists' Assistants' Association by
MR. C. F. WYATT.*

THE influence of light in altering the colour of bodies appears to have been noticed from the earliest times, but it is only within recent years that this property has been put to any practical use.

Scheele, in 1777, showed the change that takes place in the salts of silver, and also the dissimilar effects of the different rays of light in producing this change. He says:—"Fix a glass prism at the window, and let the refracted sunbeams fall on the floor; in this coloured light put a paper strewed with horn silver, and it will be noticed that the silver grows black sooner in the violet than in any of the other rays."

Ritter, in 1801, proved the existence of rays beyond the visible violet ones, which had the property of rapidly blackening chloride of silver.

The first attempt to utilise these effects in order to obtain permanent impressions of objects appears to have been made in 1802, when Wedgwood published "an account of a method of copying paintings upon glass, and of making profiles, by the agency of light upon nitrate of silver." This consisted of white paper or leather moistened with a solution of nitrate of silver. He says, when the shadow of a figure is thrown on this prepared surface, the part concealed by it remains white, while other parts become blackened. After the colour has been once fixed on the leather or paper it cannot be removed by washing with water. No method of rendering these impressions permanent by removing the unaltered salts of silver was then known, and the pictures could only be examined in a very subdued light. This crude system is practically the one which is now in use to obtain ordinary photographic prints, they being copied from a negative on glass, by placing the prepared paper at the back, and allowing the light to pass through the negative. In this way, of course, a reversed or positive picture is obtained, the light blackening the paper beneath, more or less, in proportion to the obstruction of the negative.

In 1827 Niepce gave an account of a process to which he gave the name of "Heliography." He coated a plate of glass or a tablet of silver with a varnish made by dissolving asphaltum in oil of lavender, and drying it by gentle heat. This was exposed in the camera for from six to eight hours, after which it was placed in a mixture of oil of lavender and oil of petroleum, by which the parts unacted on by light were dissolved, leaving the picture with the appearance of an etching. This was a very tedious process, and the long exposure required produced great "blurring" in the image, as the shadows would, of course, move considerably in the space of eight hours.

The first process which was put to practical use was that of Daguerre, published in 1839.

A sheet of copper thick enough to keep perfectly flat was plated with silver, thoroughly cleaned and polished, and then exposed to the vapour of iodine for a variable time, according to the temperature—usually from five minutes to half an hour. This gave the plate a thin coating of iodide of silver, and, this being the sensitive surface, it must of course be kept from any light that would have any effect on it. For this purpose the windows of the room should be glazed with yellow or orange coloured glass, which effectually prevents any light injuriously affecting the plate. It is now exposed in the camera. The length of time which should be allowed for this of course varies with the intensity of the light, and can only be learnt by experience.

Even now there is only what is called by the somewhat vague term of an invisible image impressed on the plate. In order to render it visible it requires developing. This is effected in the Daguerrotype process by exposing it to the vapour of mercury, this being deposited only on those parts which have been acted on by light. In order to prevent any further action of light the plate is placed in a weak solution of hyposulphite of soda, which dissolves the unaltered iodide of silver, and on washing it the picture is quite unchangeable by light; but the slightest friction destroys it, as will be readily understood, the image being

formed by the adherence of globules of mercury to the surface of the silver.

In addition to the great length of time required in this process there is the additional disadvantage that a single picture only can be produced at a time. A further improvement consisted in first taking a negative picture, that is, a picture having the lights and shadows reversed. From this any number of positives could be obtained. Paper was first employed for this purpose, being rendered transparent after the picture was taken by means of a thin coating of white wax, afterwards glass plates coated with albumen. The use of glass plates for the production of a negative led to the introduction of collodion as a vehicle for suspending the sensitive salts of silver, and this process, known as the collodion process, has been, and still is, extensively used.

A clean glass plate is coated with collodion, containing in solution an iodide, bromide, or a mixture of the two, by pouring it on the plate and allowing it to flow gently over, and then draining back any excess. This, when the collodion has just set, is immersed in a solution of nitrate of silver for a few minutes; by this means iodide of silver in a very minute state of division is formed in the film. It has now to be exposed while still wet to the action of light in the camera, from ten to twenty seconds being usually sufficient. The development is quite different from that used for the daguerrotype. Usually a solution of ferrous sulphate acidulated with acetic acid is used. In some cases pyrogallie acid is used, instead of the iron developer. The solution is poured over the plate and kept moving, in order to prevent any unequal action, until the image has sufficient density, when the developer is washed off. To prevent the further action of light upon the plate it is fixed with a solution of cyanide of potassium or of hyposulphite of soda; in each case a soluble double salt is formed with the unaltered silver.

I have a decided preference for the cyanide of potassium, that acting much more quickly than the hyposulphite of soda, besides being less liable to decomposition. It will be understood that these operations should be conducted in a light which does not affect the plate. For these wet plates light passing through ordinary yellow glass is safe to work by.

After the plate has been fixed, it should be thoroughly washed, by flowing water over it, to remove all traces of the solutions used, and may then be dried and varnished.

The drawbacks to this process are chiefly the short interval that can only be allowed between sensitising the plate and exposure in the camera, and between this and development, not more than a few minutes between each operation; as, should the plate partially dry, the nitrate of silver left on the surface of the plate crystallises and causes a number of small spots to be spread over the picture.

For an amateur this process is very inconvenient, owing to the necessity of carrying all the apparatus required for preparing and developing the plates at the time of exposure.

The dry-plate process overcomes this difficulty, as a much longer interval can be allowed between exposure and development.

In collodion dry plates it is usual to give the plate a preliminary coating of gelatine or albumen, otherwise the collodion film will not adhere sufficiently to bear the subsequent operations. Over this substratum the collodion is applied and sensitised in the usual way. The film should now be thoroughly washed, to free it from all traces of nitrate of silver or other soluble salts, and what is known as a preservative applied. Various substances are used for this purpose, such as tannic or gallic acid, gelatine, coffee, &c.; sometimes sugar being added to assist the action of the developer by rendering the film more readily permeated by it. A final coating of albumen is given to protect the plate from atmospheric influences. These plates are rather less sensitive than the ordinary wet collodion ones, but are far more convenient to use, as all operations requiring cumbersome apparatus can be performed at home.

Emulsion processes next require description. The collodion emulsion process is a modification of the one just described, the sensitive salt of silver being suspended in the collodion previous to coating the plate. In other respects it does not differ materially.

I have now given a necessarily rapid sketch of the chief processes which have, until recently, been principally in use, but there are many others which differ slightly from those

described, but which are in principle essentially the same. Of the next process, viz., the gelatine emulsion process, I hope to give a more minute account. It is, I believe, the one most extensively used at the present time, and is more easily worked than any of the preceding ones.

Both in preparing and developing these plates great care should be taken with regard to the light used. The ordinary yellow light, which is perfectly safe for the collodion plates, would rapidly "fog," or blacken, these more sensitive ones. Most of the work can be done at night by the use of a lantern with deep ruby glass.

There are almost endless formulæ for gelatine emulsions, but they may be divided into two classes, those prepared with and without ammonia.

In those prepared without ammonia, a solution is made of gelatine and a soluble bromide, usually potassium or ammonium bromide, with in some cases an iodide or chloride, or both, and while warm a solution of nitrate of silver added in nearly sufficient quantity to decompose the whole of the bromide, the object being to obtain bromide of silver in as fine a state of division as possible. The emulsion should now be kept liquid by heat for a varying time, this depending chiefly on the temperature used, as the higher this is the shorter time is required. It is well not to use a very great heat, as the gelatine loses to some extent its property of setting if kept long at a high temperature. A plan has been recommended of heating the emulsion at a low temperature with a portion only of the gelatine, afterwards adding the remainder; this prevents, as far as possible, the risk of decomposition.

For plates prepared with ammonia either a solution of ammonio-nitrate of silver is used, or ammonia added to the emulsion after the bromide has been added. Both ways are very much quicker than the boiling process, but great care should be taken that the temperature does not rise too high: it should never exceed 105° Fabr., as the gelatine speedily decomposes in the presence of ammonia, and of course more readily when heated. It is only necessary to keep the emulsion liquid for about a quarter of an hour. After the emulsion has set, it should be thoroughly washed. A good plan is to squeeze it under water through some coarse canvas: in this way it is very quickly freed from the soluble salts. Other plans can be adopted. Merely cutting into small pieces and allowing it to soak in water frequently changed is sufficient; but it takes much longer. On redissolving this with heat, and straining through a clean piece of chamois leather, it is ready for coating the plates. This is the most difficult of all the operations. With collodion it is comparatively easy to get an even coating, as the film so quickly dries; but with gelatine it is very much more difficult. The solution has first to be spread as evenly as possible over the plate, and this latter has then to be placed on a perfectly level surface until the gelatine has set, when it is placed in the drying-box. If the plate is not kept quite level the coating is thicker at one end of the plate than at the other, and there is a corresponding difference in the density of the picture. The drying-box is merely a light-tight box, through which a current of air is made to pass. In this way the plates dry in about twelve hours.

When only a few plates are wanted a useful way is to use an ordinary box fitted with shelves, and having at the bottom a tray of chloride of calcium, or similar substance. This answers perfectly, but is somewhat tedious, as the plates take about a week to dry thoroughly.

Almost any degree of rapidity can be obtained with this process by varying the length of time the emulsion is heated. As a rule, the longer it is heated the more sensitive is the resulting emulsion, but it is very doubtful if it is of much advantage to use a very rapid plate, except in special cases when objects are in motion. A slow plate is much more easily developed, and more latitude can be given in the length of time it is exposed than is the case with a very rapid plate.

The manufacture of these gelatine dry plates is very troublesome, and as they can be bought ready for use at a reasonable price, I should strongly recommend anyone not to make them. I have merely given the process as I think it would be advantageous for everyone to know a little about it. I have made some myself, but shall probably not repeat it, except as an experiment, as the plates cost rather

more than they could have been bought for, besides requiring on an average about an hour's work for each plate that is fit for use.

The length of exposure required varies according to the make of plate, some requiring only the fractional part of a second, others from ten to fifteen seconds. There are various ways by which very short exposures can be given. Usually it is by shutters revolving in front of the lens by means of a spring, or being allowed to fall by their own weight, they having an opening by which light is admitted through the lens during their descent. The usual development is by means of pyrogallic acid with ammonia, but in many cases a solution of ferrous oxalate is used.

This is made by adding a saturated solution of ferrous sulphate to a saturated solution of neutral oxalate of potassium, or a better way is to dissolve freshly-precipitated oxalate of iron in a carefully-neutralised solution of oxalate of potassium by the aid of heat, and after the solution has cooled and deposited any excess of ferrous oxalate it should be made slightly acid by adding citric acid (about a grain to an ounce). This oxalate developer has this advantage, that it is possible to use it more than once, and it is, in the hands of a beginner, more manageable. It is particularly suited for transparencies, as the deposit is not of such a brown colour as it is when the pyrogallic acid developer is used. For negatives, however, I prefer the latter.

Printing, as it is termed, that is, obtaining a positive picture from a negative, is usually done on paper, and it is the same by whatever process the negative is obtained. The paper is first prepared by coating it with albumen containing chloride of sodium, and sensitised by floating for a few minutes on a strong solution of nitrate of silver; this when dry is ready for use. The negative is placed in a printing-frame, with the prepared paper at the back, and exposed to light; the progress of the printing can be seen without altering the position, by turning back half of the frame. It must be allowed to become a little darker than the finished print is to be, as the subsequent operations of toning and fixing partially remove the colour. When printed deeply enough it is of a brownish-red colour. To change it to the purple colour generally seen in the finished print, it is washed, in order to remove free nitrate of silver, and then placed in a "toning" bath, composed usually of chloride of gold and acetate of soda, by which the desired colour, or "tone," is obtained. It is fixed by means of a solution of hyposulphite of soda, the strength usually recommended being 4 oz. to the pint, the print being kept moving in it for about ten minutes. I use myself a solution half this strength, and allow the print to remain in from twenty minutes to half an hour. I find that less change takes place in the colour of the finished print, and also there is no liability to the formation of blisters on the surface, as is the case when the strong solution is used.

It is most essential, in order that the prints may not change, that the whole of the hyposulphite of soda used in fixing them be removed. Washing-trays can be obtained by which they are kept moving, and the water changed frequently, by mechanical means; but an ordinary large tray or dish answers every purpose if a little trouble is taken with it. It is well to give each print a preliminary wash under the tap, and then allow it to soak in water for about twelve hours, the water being changed by allowing a stream to constantly flow into it. Care must be taken that too many prints are not washed at the same time, otherwise they stick together, and then it is impossible to wash them properly. Too great care cannot be taken in this, as the least trace of hyposulphite left in the print inevitably causes discoloration.

PHOSPHORUS.—To prevent the luminosity of mixtures, ointments and liniments containing phosphorus, add a little benzol, oil of turpentine or oil of peppermint.—*Stearn.*

CIGARETTES always smell more or less of the burning paper; this may be prevented by soaking the paper in a dilute solution of saltpetre, containing tincture of tobacco leaves and oil of anise; after drying, the paper may be soaked in alcoholic solutions of the drug, if necessary. The proportions for 300 square centimetres (about 10 cigarettes), are, 3 grains saltpetre, 1½ fluidrachm of tincture of tobacco (1 in 5) and 2 drops oil of anise.—*Stearn's New Idea.*



PROSECUTION UNDER THE SEVENTEENTH SECTION OF THE PHARMACY ACT, 1863.

At the Clerkenwell Police Court on Thursday, July 26, before Mr. Barstow, Edward Knight, gold and silver refiner, 29A and 30A Percival Street, Clerkenwell, London, E.C., was charged on two summonses (1) for having sold to Alfred Wright, Assistant-Secretary of the Chemists and Druggists' Trade Association of Great Britain, a certain poison, to wit, cyanide of potassium, in a certain packet, the cover of which packet did not set forth the name of the poison, and the name and address of the seller of the same; (2) that the said sale was effected, the purchaser being unknown to the seller and not introduced to the seller, in contravention of the statute in such case made and provided.

Mr. Henry Glaisyer, solicitor of the Chemists and Druggists' Trade Association, appeared for the prosecution, and defendant appeared in person.

The defendant pleaded guilty. A fine of 50s. and costs was inflicted on the first summons, and 5s. and costs on the second.

THE SOCIETY OF APOTHECARIES V. PEARSON.

THIS was a case tried at the Southwark County Court on August 3, before H. Holroyd, Esq., Q.C., Judge, to recover the penalty of 20l. for alleged infringement of the Apothecaries' Act, 1815. The hearing of the case occupied nearly five hours. Mr. H. R. Hodson, instructed by Mr. C. J. C. Pridham, appeared for the plaintiffs, and Mr. J. W. C. Washington represented the defendant.

Before the case was opened Mr. Washington said he had to submit two or three technical objections. First, he urged that the Court had not the power to try cases under the Apothecaries' Act. That Act, passed in 1815, by section 26, provided that prosecutions for infringements must be brought in one of His Majesty's Courts of Record. County Courts did not become Courts of Record until the 9 & 10 Victoria.

His Honour pointed out that it had been held that any action which could be brought in the Westminster Courts could be brought in a County Court, and he cited a case where it had been specifically settled that a rate could be recovered by process in the County Court.

Mr. Washington said that was so in regard to debts or demands, but this was neither one nor the other.

Mr. Hodson said a similar objection had been raised in the case of the Apothecaries' Company v. Burt, tried in 1856, but it had been ruled that the objection could not be maintained.

After some further discussion, His Honour decided that he had jurisdiction, but took note of Mr. Washington's objection.

The learned Judge also overruled, but took note of, two other objections raised by Mr. Washington. One was that by the last section of the Act twenty-one days' notice of wrong done under the Act was necessary, and that in this case no notice whatever had been given, and the other was that the company had sued for only one penalty, but that in the particulars served they had named three cases on which they had intended to proceed, and had added "and divers other persons." They were, in fact, going on a fishing expedition. In regard to this, His Honour said he must strike out the words "divers other persons," as the defendant might be prejudiced by having to answer charges of which no particulars had been served. Mr. Hodson made formal objection to His Honour's ruling in this respect, in case material evidence should be excluded. The learned Judge, however, declined to call upon the plaintiffs to elect one case to proceed upon, as Mr. Washington desired.

Mr. Hodson briefly opened the case, saying the defendant was a chemist and druggist, and that he should call evidence which he thought would satisfy the Court that he had acted as an apothecary. As a definition of the acts of an apothecary, he quoted from Mr. Justice Cresswell's summing-up in the case of the Apothecaries' Company v. L. Tirga, that "an apothecary is a person who professes to judge of internal disease by its symptoms, and applies himself to cure that disease by medicines." He was confident that the evidence he should put before the Court would prove that the defendant had acted as an apothecary, according to this definition.

Frances Woodcraft, 29 Commercial Road, Blackfriars, said she had known the defendant, who keeps a chemist's shop at 104 Stamford Street, about two years. In December, 1882, her boy, eight years of age, was ill. She called on defendant, and asked him to call round and see him. He called.

Did he examine him?

Mr. Washington objected to such a leading question, and witness was asked what defendant did. She said the defendant did examine the child, applying his ear to his chest and feeling his pulse. He then said there was nothing to be alarmed at, but that if the child's breathing became worse she might apply a mustard poultice. She sent to defendant's shop for some medicine, according to his appointment. The defendant paid a second visit the next day. There were directions on the bottle how the medicine was to be taken, but she had not kept the bottle. She did not know the nature of the medicine supplied. The child grew worse, and she called in Dr. Seymour, who found the child suffering from measles and inflammation of both lungs.

Cross examined: She had told Mr. Pearson she believed the child had measles. Did not know whether he recommended the mustard poultice for the measles. Her husband was a labouring man, earning 2s. a week. Mr. Pearson had never sent in any bill. Dr. Seymour had not taken down her statement. Defendant did not advise her to call in a qualified medical man. She did not remember exactly what she had said to Mr. Pearson when she asked him to see the child. She had noticed a rash on his chest in the morning of the day. Did not mention the rash to Mr. Pearson, but showed the child. Told him she thought he had measles.

Rose Mitchell, living at Peabody Buildings, Duke Street, Blackfriars, said the defendant had attended her in her confinement in April, 1882. He had prescribed for her one draught only, which had been sent from his shop. She did not know the nature of the draught. In September, 1882, the child was very ill. She called in defendant, who attended at her residence on more than one occasion and supplied medicines of which she did not know the nature. The three bottles (produced) were what she received from him. Each bore the directions, "One teaspoonful to be taken every four hours." Defendant had told her that the child was only suffering from cow-pox. Defendant attended the child about a fortnight, but it became worse and she called in Dr. Seymour.

In cross-examination witness said the child was vaccinated on the 6th and again on the 11th of September, and the illness all came through the vaccination. Defendant had refused to make any charge.

Re-examined by Mr. Hodson, she said she had expected to pay, and had offered him money. She had understood his midwifery fee was 15s. Believed he was a fully qualified medical man.

Georgina Flusher, Princes Street, Stamford Street, was asked if she had a child named Annie Flusher. She said she had, and that that child was seven years old. Mr. Pearson did not attend Annie Flusher in November, 1882, but had attended a younger child, named Florrie Flusher.

Mr. Washington said the charge against defendant was of having attended Annie Flusher, and he objected to evidence in relation to Florrie Flusher, but the learned judge said he should allow the amendment, as he did not see how the defendant could be prejudiced, the child having been in the same family.

Mr. Washington said he should have to ask for an adjournment.

Witness said defendant had attended Florrie six or seven times. Had told her the child was suffering from bronchitis,

and had supplied several bottles of medicine. She did not know what the bottles contained. Had allowed defendant to judge what medicine he would send. The child grew worse, and she afterwards called in Dr. Seymour. She had paid money to defendant, but did not remember how much.

Cross-examined: Dr. Seymour had asked her who had attended the child. The child had been vaccinated. She did not know when. To her knowledge no one else had seen the child. On Dr. Cannock being asked to stand up, witness said she did not know she had ever seen him before. She explained, however, that being out for about twenty minutes one day when the child was ill, her other daughter had told her when she returned that a gentleman from Mr. Pearson had called to see the child.

Mr. Washington said that the plaintiffs had given names in the particulars served, but had refused to furnish details of dates or to say whether the persons attended were children. He asked for an adjournment, as until they heard the evidence they did not know what they had to answer, and could not tell in all cases by whom the children had been attended. The application was refused.

John Rusby Seymour, physician and surgeon and apothecary, gave particulars of the three cases referred to. Mrs. Woodcroft's child had measles, and although not declared when he first saw him, the diagnosis was quite easy. Rose Mitchell's child suffered from pharyngitis or inflammation of the throat, and had no symptoms of cow-pox. It got well in three days. Mrs. Flusher's child also suffered from pharyngitis, and had no symptoms of bronchitis. The child got well in about a week.

Cross-examined: Was Dr. or Mr., whichever the counsel preferred. Became qualified in 1881, and had practised in that neighbourhood since. Did not think he was bound to answer whether he had given information. Mr. Pearson was there when he came to the neighbourhood. Did not know that he was public vaccinator. Did not know that he had a midwifery licence. The certificate of his competence from a surgeon said nothing. Registration as a surgeon dentist might only mean that he had practised as such before the passing of the Act. Vaccination was not more likely to be successful in a child under three months than above. The only reason for the statute fixing three months was that the earlier the vaccination was performed the greater was the protection to the public.

For the defence Mr. Washington quoted largely from a non-legal report of the Shepperley case, referring to the evidence of the witnesses who proved the custom of the trade before 1815, and reading passages from the speech of Sir Henry James, and from the summing up of Mr. Baron Pollock.

Mr. Hodson said that Shepperley's case decided nothing. The verdict was given in favour of the defendant because the jury did not find the act sufficiently proved. Since then a case had come before Mr. Motteram, Q.C., at the Birmingham County Court, who had given full consideration to the Shepperley case, and had decided for the plaintiffs.

Mr. Washington went on to argue that the duties of an apothecary were defined in the Act, and he urged that Mr. Pearson had not done more than he was allowed to do. He was a public vaccinator, was authorised to attend midwifery cases, and to act as a dentist. He was also a registered chemist and druggist, and was a perpetual student of medicine at the Westminster Hospital School of Medicine. He is a person to whom some eighty or one hundred persons go daily for certain compound medicines, and he had a right, as the Shepperley case showed, to give them medicine for slight ailments. In serious cases he always referred them to qualified medical men. Having quoted the evidence respecting the alleged sore throat in the Shepperley case, when the defendant, it was said, had looked into the throat, he said his client had done no more than this.

His Honour said that if a man went into a chemist's shop and showed a bad tongue, and was advised to have a box of Cocker's pills, there would not be any "acting as an apothecary"; but in this case the defendant had examined the child at the bedside.

Mr. Washington said there was no difference whether the examination was made in his shop or in the patient's house. The strongest case was the case of measles, and there he had suggested a mustard poultice to relieve the child's breathing. He was sure the Court would not deprive the

poor of the benefit which they derived from being able to obtain medicines at the chemists for the relief of the slight ailments of themselves or their children. In the other cases he had only given medicine for the results of vaccination, which, as the public vaccinator, he had a right to treat, and in the last case he had acted under the advice of a qualified medical man.

Charles Thomas Pearson was then sworn. He said he was a registered chemist and druggist at 104 Stamford Street. He was a registered dentist, a perpetual student of medicine. public vaccinator, was certified to attend cases of midwifery. There was a school of chemistry and pharmacy carried on at his premises. He had been twenty years in business. Examined specifically on the cases brought forward, he said Mrs. Woodcroft had asked him to send her the usual medical compound for measles. It was she, and not he, who said the child had measles. He did not recollect having visited that child a second time. In the other cases he had only given medicines for the effects of vaccination. Dr. Cannock had seen Mrs. Flusher's child, and he had simply carried out his (the doctor's) instructions. He had visited the child in the first place, because Mrs. Flusher had run after him as he was going along Stamford Street, and had asked him to come to her child who was in a fit. He had gone with her, undressed the child, put it in a bath, and remained till it got better. It was merely a case of emergency. Afterwards Dr. Cannock had examined the child and had told him what to supply. If he ever advised medicines he never charged for them. Serious cases he always referred to doctors. He mentioned Messrs. Kane, Richardson, Dr. Jones, Vauxhall Bridge Road, Dr. Scott, Lambeth Walk, Mr. Spratt, Brook Street, as doctors to whom he often referred cases.

Mr. Washington: And others with the exception of Dr. Seymour?—I send cases to Dr. Seymour also.

Cross-examined: He kept no books. His business was entirely a ready-money business. Had no entries anywhere of any of the attendances named by the witnesses. If he had charged Mrs. Flusher anything he must have guessed at what amount she owed him. Had no records except of midwifery and dentistry cases. Did not remember going a second time to see Mrs. Woodcroft's child. Would not swear he did not go a second time. When he went the first time did not know what she wanted. Was bound by law to go when he was sent for. He knew what were the duties of a registered chemist and druggist. They were to supply medical compounds and drugs, patent medicines, and proprietary articles. A perpetual student of medicine was one who was entitled to attend lectures and hospital practice until he had passed his examinations. He was not entitled to visit patients and prescribe for them as a medical man, nor as an apothecary, but he might as a perpetual student of medicine. The money received from Mrs. Flusher, he supposed, was for medicines prescribed by Dr. Cannock. The witness was then cross-examined rather sharply concerning other persons whom he was alleged to have visited. Some he remembered, others he had forgotten. One he had attended "with another doctor," but he was not sure with whom. He had a great many doctors come to his place. Thirty a day sometimes. He did not have "arrangements" with them. They came for various purposes. Sometimes to see *materia medica* specimens, sometimes to see bones, sometimes to see books.

Mr. C. W. Cannock, licentiate of the College of Physicians and Surgeons of Glasgow, and licentiate of the Society of Apothecaries, residing at Stratford, had known Mr. Pearson several years, and had at times visited cases at his request. He had seen Mrs. Flusher's child, and had told Mr. Pearson what to give it. He had been introduced to Mr. Pearson by a student at the school carried on at his premises. In cross-examination this witness explained that a perpetual student was one who paid a composition fee for the whole medical curriculum.

Mr. Spratt, a licentiate of the College of Physicians and Surgeons of Glasgow, residing at Brook Street, Grosvenor Square, had also had patients sent him by Mr. Pearson, but amid 2,500 names on his books he could not recall the particulars of any one case.

After a few words from Mr. Hodson, His Honour asked Mr. Washington if he desired to take the legal points raised to a higher court. That gentleman was not prepared then

to ask for a case, and the Judge said he must hold that the defendant had acted as an apothecary. Judgment for the plaintiffs with costs.

LAWSON V. LAWSON.

In the Queen's Bench Division of the High Court of Justice, before Mr. Justice Watkins Williams, on July 24, the action *Lawson v. Lawson* was heard. It was a case in which the plaintiff, Mr. W. J. Lawson, of Whitstable, claimed the sum of 110*l.* from the defendant, Mr. E. J. Lawson, chemist, his cousin, he (plaintiff) being the holder of promissory-notes for that amount from the defendant. The latter pleaded that the money was his aunt's (Miss Ann Lawson), that it was advanced to him by her or under her instructions, that he had since repaid it, and that he held the receipt for such repayment. In the opinion of the learned judge, however, the plaintiff was in possession of a negotiable security which had not been satisfied, and he therefore instructed the jury to find for the plaintiff. Judgment was entered accordingly.

CLAIM FOR COMPENSATION.

On July 19, before the Recorder (Sir Thomas Chambers, Q.C., M.P.) and a special jury at the Guildhall, Mr. Albert Domeier brought a claim against the Metropolitan and Metropolitan District Railway (City Lines and Extensions) Joint Committee of 2,605*l.*, as compensation for loss of his lease and disturbance of business in consequence of his premises being required. Mr. Willis, Q.C., M.P., appeared for Mr. Domeier, and Mr. Philbrick, Q.C., and Mr. Knipe for the railway companies. Mr. Domeier held the premises on a lease from the Vintners' Company at a yearly rental of 8*l.* He had bought the lease when it had nine years to run for 1,100*l.*, and when he had notice in October, 1882, the lease had only two years to run. But it was claimed that he had a reasonable prospect of getting a renewal of the lease. He had spent about 300*l.* in fixtures, &c. Now he had premises at St. Mary-at-Hill, which, it was urged, were not so well situate for his business, and were much dearer. The removal cost him 80*l.*, and breakages he estimated at 35*l.* His stock was worth 10,000*l.* Mr. J. R. Cassell (of the firm of Fuller, Horsey, Sons & Cassell), Mr. R. A. Ellis (of the firm of R. Ellis & Son), and Mr. J. M. Klenck (of Bishops-gate Street), all surveyors, gave evidence in support of the claim. Mr. H. Gannan, accountant, of Walbrook, showed that plaintiff's receipts from February to April, 1883, were 5,736*l.*; while in the same period in 1882 they were 8,233*l.* The percentage of net profits in 1881 was rather over 3 per cent.; the gross returns in 1881 were 150,186*l.* The accounts for 1882 were not complete. Mr. Willis said the uncontradicted witnesses as to the value of the premises agreed that the value of lease, removal, &c., amounted to 642*l.*, and he urged the jury to give compensation for the loss of business and for the additional rent the plaintiff had now to pay. Mr. Philbrick, for the company, said that the property was not required for the railway, but for the street improvement. Values had been inflated in that neighbourhood in consequence of the coming of the railway. The premises had lived their life, and it was only a matter of the plaintiff removing two quarters earlier than he would otherwise have had to do. He estimated the capitalised value of the remnant of his lease as 260*l.*, less 100*l.* for repairs = 160*l.*; add 10 per cent. for forced sale, 16*l.*; fixtures, 42*l.* 10*s.*; rent, leases for the last half-year, 50*l.*; and 100*l.* loss by removal; together, 368*l.* 10*s.* After the Recorder had summed up, the jury, without leaving the box, returned a verdict for 500*l.*

ANALYSTS ON MUSTARD.

A MUSTARD case was heard at Stow-in-the-Wold, on July 19. A grocer, named Davis, was summoned on the certificate of Mr. John Horsley, of Cheltenham, who stated that the sample remitted to him contained 30 per cent. of wheat flour coloured with turmeric. The mustard sold was Colman's, and on their behalf a certificate from Mr. Sutton, of Norwich, was put in, stating that the mustard contained 90 per cent. of pure brown and white mustard flour and 10 per cent. of wheat flour. Mr. Horsley said that his process of analysis was by the microscope only. He had heard

of analysis by ether, but he preferred to cling to the old-fashioned method. As Mr. Sutton was not present the bench declined to receive his certificate as evidence, but they did not consider the case satisfactorily proved, and dismissed the summons.

THE OWNERSHIP OF A TRADE LABEL.

LAST month, in the Chancery Division of the High Court of Justice in Dublin, before the Master of the Rolls, the case of *McMaster, Hodgson & Co. v. Hayes* came up on an interlocutory motion. Both parties are engaged in the drug trade, and some interesting points were raised. Mr. Hugh Holmes, Q.C., on the part of the plaintiffs.

TRADE LABELS.

At Dublin, the case of *McMaster, Hodgson & Co. v. William Hayes* has been heard. Mr. Holmes, Q.C., on the part of the plaintiffs, moved for an interlocutory injunction to restrain the defendant from affixing to any bottles or vessels any labels containing the words "Warren's Sweet Essence of Rennet," for making curds and whey," or any other words representing the label under which the plaintiffs vended that preparation. An affidavit of Mr. E. M. Hodgson, senior member of the plaintiffs' firm, stated that when they first manufactured the sweet essence of rennet, Mr. J. V. Warren was a clerk in their employment, and had charge of the perfumery and essence department; and the plaintiffs adopted the name of "Warren's Sweet Essence of Rennet," as a trade label, they themselves being sole proprietors of the formula of the manufacture of the essence. The trade-mark was registered in 1870, and Warren witnessed the signature of the firm to the certificate of registration. In 1874 Mr. Warren left their employment and with certain partners had sold the sweet essence of rennet as their own manufacture. The present plaintiffs commenced proceedings to restrain Warren & Co., but the action was discontinued owing to the dissolution of partnership of Warren & Co. and the winding-up of their business. In August, 1882, the plaintiffs became aware that the defendant was selling a preparation called "Warren's Sweet Essence of Rennet," and on cautioning him not to do so, Mr. Hayes claimed property in the formula and label as the assignee of Warren. The Master of the Rolls: Is your case that the plaintiffs purchased the use of Warren's name? Mr. Holmes replied in the negative. Mr. Warren's name was only used in compliment to him. When he left the plaintiffs' employment he carried with him a book which he had kept, containing the secret of this and several other preparations. That book was purchased by Mr. Hayes as part of the goodwill of Warren & Co.'s business. Mr. Jellett, Q.C., claimed that Mr. Warren was the inventor of this essence, and further stated that the plaintiffs, on being cautioned by Warren, when the latter was in business for himself, had discontinued the use of his name, and had registered a new label, the words of which were "Sweet Essence of Rennet," under which they continued to sell until 1882. In the meantime the defendant purchased Warren's rights, and registered his label, and the plaintiffs afterwards commenced again to use the label as originally registered in 1870. When the defendant was challenged he at once asserted his rights, and put the plaintiffs at arm's length. Counsel submitted that this was not a case, in which, on the eve of the long vacation, an interlocutory injunction should be granted.

The Master of the Rolls, in giving judgment, said:—This is a most untenable motion, nor has it any element to commend it to this Court. The Messrs McMaster, Hodgson & Co. had in their employment some years ago a man named Warren, who appears to have been an ordinary clerk. As I make out from the evidence Warren would appear to have been the inventor of this sweet essence of rennet. I have read the component parts of the recipe which is before me, and it is a very ingenious thing altogether. Well, the Messrs McMaster, Hodgson & Co. made use of this invention of his rightly enough while he was in their employment, and they clapped on it the name "Warren's Sweet Essence of Rennet." The use of Warren's name is a very peculiar thing, and struck me very early in these proceedings. Why did this firm prefer that to their own name, a name of great respecta-

bility, no doubt? Why did they drop their own title well known to the public and adopt a clerk's name? That perplexed me from the very outset, and I have heard no reasonable or sufficient explanation offered up to the present, except the one which is all sufficient, that he, Warren, invented the preparation, and that the firm, as a sort of compliment to him, made use of his name, and registered their trade-mark—an appropriate and pretty little trade-mark—with that name attached. Well, after this Warren stopped some time in their service. He was a witness to the registration of the plaintiffs' trade-mark, and while he continued in that service the thing was right enough. He was receiving a recognition of his rights by the firm vending his preparation under the title of his own name; but after a time he left the employment and the relationship therefore ceased. It is not pretended that the plaintiffs meanwhile bought from him the right to use his name, or that they bought from him the invention. Of course, if he was the inventor of it and they became aware of the invention, he could not prevent their preparing the compound and vending it after he left their service; but he not being a partner in the firm (only a common clerk), after he left had a clear right to prevent their using his name at all, and there are several strong authorities in support of the proposition. He leaves the plaintiffs' employment, goes away, and sets up in business for himself, a portion of his business being the manufacture of this very essence, which he sold as "Warren's Sweet Essence of Rennet." Discovering that the plaintiffs are using his name in connection with the preparation, he remonstrates with them, and with what result? That they refrained from the use of it for a considerable period. That is demonstrated before me on the registration, for after the establishment of Warren's firm of Warren & Co., and after Warren's letter of remonstrance against the plaintiffs continuing to use his name, they re-registered the trade-mark, "Sweet Essence of Rennet," dropping the name of "Warren" altogether. That was in 1876. In 1877 Warren registered his trade-mark as "Warren's Sweet Essence of Rennet," and it was identical with the label, the use of which is here sought to be restrained. The two trade-marks are entirely different. The one is a cow and a calf; the other is a globe and a phoenix; and the bottles in which the preparations are sold are very similar in shape, but I have yet to learn that the law extends protection to the peculiar formation of a bottle. Admittedly what is here complained of is the title. Warren's registration, "Warren's Sweet Essence of Rennet," which was made when the plaintiffs re-registered, dropping the name "Warren," was purchased by the defendant, and from the deed before me I find that a very substantial sum was paid—150*l.*—for that and some other things. Having dropped the full title, the plaintiffs, finding, I am told, their sales falling off, adopted another device: on the bottles bearing the label "Sweet Essence of Rennet," they struck a second label, "Warren's Genuine Sweet Essence of Rennet." That was a clear invasion of Warren's rights, acknowledged by the prior disuse of his name, and latterly, in 1882, they again re-registered their trade-mark as "Warren's Sweet Essence of Rennet," and now they come to me for an injunction to restrain the use of the label by Warren's assignees (Messrs. William Hayes & Co.). In my opinion they had no case for an injunction at all; they have utterly failed to make out one, and I will go further and say—though not much in the habit of venturing an opinion on an issue not exactly before me—I am not certain that they had not been guilty of a piracy of Warren's rights, and, of course, equally of the rights of the defendant here as his assignee, but I have only now to decide whether this injunction being interlocutory before judgment and before answer should be granted, and I am convinced, as I am of anything under the sun, that it should not. As I have said the plaintiffs did not by purchase acquire the right to use Warren's name, and it is clear that the mere fact of registration gave no such right adverse to himself. The trade mark, the protected word, here is plainly "Warren's." The word "sweet" could not be protected. It is within the same category as "nutritious," and that word applied to stout could not be protected, as has been already decided. Then the words "essence" and "rennet" were beyond protection by registration or otherwise, being words in common use, and in

which each member of the public has, so to speak, a common property. The name of this composition is "Warren's." That was used just as inventors use all sorts of catchy titles to introduce their wares to the public, and frequently the more ridiculous, the more laughable the title, the better the thing takes. We have many examples of that. A notable one is a soap advertised everywhere under an attractive name, which, though very possibly much like all other soaps, was the means of making the fortune of its producer. In the very trade-mark journal before me and opposite to this registration of "Warren's Sweet Essence of Rennet," I find a trade-mark registered for cigarettes, "Lobelia inflata." The public are so attracted by curious names that possibly the "Lobelia" will draw, and if not the "Lobelia," then, perhaps, the "Inflata" will. The man who manufactures these happens to be a Mr. Bateman, but he takes care not to call the cigarettes by his own name. In the case of this preparation Warren had become the "Lobelia," and the plaintiffs have fallen into this error, they have used the name of a clerk to designate their wares. That clerk, still a living man, not having sold his name to them, now objects, speaking through his assignee. I must refuse the motion for an *ad interim* injunction, and, refusing it, I must do so with costs; as I said at the very outset, a more untenable application I never heard made, and the plaintiffs will do well to consider whether, having regard to all the circumstances, they should persevere further in this matter.

Obituary.

BLACKWELL.—On July 14, Mr. Frederick Blackwell, pharmaceutical chemist, Stoke Terrace, Devonport. Aged 42.

COATES.—On July 7, Mr. George Henry Coates, chemist and druggist, Church Street, Barlow, Derbyshire. Aged fifty-seven years.

DELVES.—On June 16, Mr. George Delves, pharmaceutical chemist, High Street, Exeter. Aged forty-six years.

WILLIAM GRIFFIN, F.C.S.—On July 16, at Wilberforce Road, Finsbury Park, William Griffin, F.C.S., of the firm of John J. Griffin & Sons, scientific instrument-makers, 22 Garlick Street, W.C., aged forty-three.

HALLAM.—On July 20, Mr. Charles Milnes Hallam, chemist and druggist, High Street, Burton-on-Trent. Aged 51.

KENDALL.—On July 27 Mr. George Kendall, chemist and druggist, Masham, from heart-disease, after an illness of about six months. Aged 63. He commenced business in Masham, Yorkshire, a little over forty years ago, during which time he has taken an active part in all local movements, rendering great service to his fellow-townsmen, by whom his loss will be deeply felt and much regretted.

POOL.—On July 16, Mr. Wm. Pool, chemist and druggist, Dumfries. Aged 46.

SANGER.—On August 3, at his residence, The Grove, Neasdon, William Albert Sanger, of Oxford Street. Aged 43.

SCHOLEY.—On July 5, Mr. Joseph James Scholey, chemist and druggist, Hemsworth, Yorkshire. Aged 55.

SLATER.—On July 29, Mr. William Henry Slater, aged fifty-nine years, from softening of the brain. He had been an annuitant of the Benevolent Fund since 1878.

WINDLE.—On July 17, at Hasland, near Chesterfield, Sarah Gelbert, relict of the late William Windle, chemist, of Edgware Road, London. Aged 59.

MARRIAGE.

COLLIS—WALKER.—On August 7, at the parish church of Fishponds, Gloucestershire, by the Rev. A. B. Day, J. T. Collis, of 60 Bartholomew Close, E.C. (Messrs. Evans, Lescher & Webb), to Ethel Constance, youngest daughter of the late Thomas Walker, of Bath.



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ANALYTICAL CHEMISTS. See page 40.

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HAY'S SOLUBLE ESSENCE OF GINGER. See page 59.

HAY'S GINGER CHAMPAGNE. See page 55.

HAY'S SOLUBLE ESSENCE OF LEMON. See page 55.

EDITORIAL NOTES.

THE NEW EDITION OF THE PHARMACOPOEIA.

Now that the new edition of the British Pharmacopœia is fairly on the way, it may be well if we briefly point out (1) some of the principal features of the Pharmacopœia which will require to be considered and determined upon by the Revision Committee, and on which it is very desirable to have a full expression of opinion; and (2) to recall some of the criticisms which have been passed on various of the processes of the present Pharmacopœia. Among general features, such questions as language, arrangement of contents, nomenclature, mode of expressing quantities, processes for chemical compounds, alkaloids, &c., demand some attention. A few words on each of these topics may be offered.

LANGUAGE.—There will probably be always a difference of opinion as to whether Latin or English should be used in the construction of a national Pharmacopœia, according as the bias of individual minds inclines towards the classical or commercial side of the question. The higher education of the present day perhaps tends towards a return to the older system, while modern commercial necessity as strongly favours a continuance of the present system. The question

SCHIEFFELIN'S SOLUBLE PILLS. See page 39.

HERBERT & GODFREY'S Aqua Crystal Spectacles } See page 39.

is one that admits of legitimate debate, but we are persuaded that its ultimate solution very much depends upon the future relation of pharmacy to those more complicated processes of manufacture contained in the Pharmacopœia, directions for which are best conveyed in the vernacular.

ARRANGEMENT OF CONTENTS.—This will probably give little cause for debate, the matter practically lying between the present system of a continuous alphabetical arrangement of substances, with class arrangement of such preparations as extracts, infusions, pills, &c., or a return to the older system of a primary list of materia medica and a secondary list of preparations.

NOMENCLATURE.—It was probably matter for congratulation, considering the many other changes involved in the new departure of a national Pharmacopœia, that so few changes were made in the present Pharmacopœia in the names of drugs and chemical compounds. Changes in nomenclature are not without serious objection and even risk, and the wisdom, therefore, of several of the changes introduced into the new edition of the United States Pharmacopœia, such as making the botanical genus name the official Latin title of a vegetable drug, or making the official Latin title denote the part of the plant used, may be questioned. Still it cannot be asserted that the nomenclature, either as regards individual substances or classes, in our present Pharmacopœia is in every respect perfect. Thus, under the harmless class of preparations, *Aquæ*, preparations intended merely to pleasantly dilute more nauseous medicines, we have *aqua laurocerasi*, a drug of the greatest potency, in many instances equalling in strength the medicinal hydrocyanic acid. Under *Essentiæ* there are two preparations which are simple solutions of essential oils in rectified spirit, and differ in no respect except in strength from the other solutions of essential oils in the same medium classified under *Spiritus*. Under *Linimenta* we have a peculiar mixture of tincture, as in the case of aconite and belladonna; of pigment, as in the case of iodine; and of liniment proper—that is, of preparations applied with friction—as in the case of chloroform and soap. Under *Misturæ* there are two preparations the directions for making which begin with the term *macerate*, and which have nothing in common with the other preparations included in this class. In *pilula saponis composita* and *tinctura camphoræ composita* there is the slightest taint of quackery, or at least of dissimulation, inasmuch as the true character of the preparations is attempted to be covered by a misnomer. Tinctures, again, bring up the vexed question as to what constitutes a simple or a compound tincture, while from the chemical side comes up the retention of such names as *liquor arsenicalis*, in presence not only of *liquor arsenici hydrochlorici*, but also of *liquor sodæ arseniatis*. When to these instances have been added the larger question of chemical nomenclature proper, there will, we think, be sufficient scope for diversity of opinion in this section.

MODE OF REPRESENTING QUANTITIES.—From indications recently given, it is almost certain that some change in the direction of substituting parts for the quantities of ingredients by weight and measure at present in use will be attempted. The expression of quantities in parts may have much to commend it, in view of the introduction, at some future date, of the decimal system of weights and measures; but it is well that it should be clearly understood what the introduction of parts into the formulæ for processes of our Pharmacopœia really means. It means the weighing of liquids as well as solids (unless parts by volume be also introduced), and this method has not hitherto found much favour among pharmacists in this country.

PROCESSES FOR CHEMICALS, &c.—Should processes for chemical compounds and alkaloids that are best prepared on the large scale, and which are, in the majority of instances, at present in the hands of large manufacturers, be given in the Pharmacopœia? In the present Pharmacopœia three systems are adopted, which appear somewhat inconsistent with each other and foreign to the authority attached to a Pharmacopœia. This is very well illustrated under the first class of preparations mentioned in the Pharmacopœia, namely, *Acids*, where in cases such as benzoic acid, no process is given; or, as in gallic acid, where it is intimated that "it may be obtained by the following process"; or where, as in other cases still, such as hydrocyanic acid, a definite formula is given, which the conscientious manufacturer feels bound to obey. Such are a few of the questions that must come before the Revision Committee. Other questions of an initial character might be added, but those mentioned are sufficient to indicate points for criticism and suggestion.

In dealing with criticisms on the processes for Pharmacopœia preparations it will be manifestly impossible to recall all that have been passed during the last fifteen years, so that here also the points indicated will be more suggestive than complete. We take the preparations as near as possible alphabetically.

Acetum Scillæ.—The spirit directed to be added has been generally objected to as deteriorating the preparation, and causing it to deposit.

Acidum Nitrohydrochloricum Dilutum.—The mixing of the strong acids, and allowing to stand for twenty-four hours, is unnecessary and uncertain. Exposure of the dilute acids for a few days to moderately good light produces a more uniform result. The saturating-power of this acid is also put too high.

Acidum Sulphurosum.—The percentage of SO_2 , namely, 9.2 by weight, is too high, and the solution does not keep. A 5 per cent. solution has been recommended as being more stable.

Alkaloids.—An improved process for estimating the amount of alkaloids in cinchona bark and opium is desiderated.

Alumen.—A proposal has been made to return to the potash alum, owing to the difficulty of obtaining the ammonia-alum commercially.

Aquæ Anethi, Cicuti, Cinnamomi, Feniculi, Pimentæ.—The seeds, &c., in these preparations are directed to be bruised. A better and more uniform preparation, it is stated, is obtained from them whole.

Confectio Sulphuris.—The addition of tragacanth powder to this formula is desirable to prevent it depositing.

Emplastrum Plumbi Iodidi.—The formula is bad, the soap plaster acting on the iodide of lead and decomposing it.

Extractum Cinchonæ Flavæ Liquidum.—A very general desire has been expressed for a better formula.

Extractum Ergotæ Liquidum.—The ether in this process is unnecessary, as the oil contained in the ergot is almost insoluble in water. The heat at which the marc is directed to be digested is also said to be hurtful.

Ferri Sulphas Essiccatus.—This preparation is directed to be dried at a temperature beginning at 212° , which may be raised to 400° . This latter temperature decomposes the salt, and renders it insoluble. It may be completely dried at a lower temperature.

Injectio Morphicæ Hypodermica.—It is suggested that this preparation be prepared direct from the salt, or from the pure alkaloid, by the addition of acetic acid, and also that the strength be altered to 10 per cent.

Linimentum Potassii Iodidi cum Sapone.—It is impossible to get uniform or satisfactory results with present formula and directions.

Linimentum Saponis.—This still remains an unsatisfactory preparation. Soap in coarse powder, and an alteration in the proportion of spirit and water have been suggested.

Linimentum Terebinthinae Aceticum.—This liniment is unmixable. An elegant liniment can be prepared with a proper portion of glacial acetic acid.

Liquor Atriplicae.—The excess of spirit produces irritation when dropped into the eye.

Liquor Calcis.—The lime should be first washed to remove chlorides.

Liquor Epispasticus.—This preparation does not blister. The substitution of glacial acetic acid or acetic ether is recommended.

Liquor Ferri Perchloridi.—Several improvements have been suggested on the process for this preparation.

Liquor Magnesiae Carbonatis.—It is suggested that the strength might well be reduced from 13 grains to 10 grains in the fluid ounce, owing to the impossibility of keeping higher proportion in solution, unless under excess of carbonic acid.

Oleum Phosphoratum.—Heating the oil to 300° is stated to be unnecessary. It is also recommended to be reduced to 1 per cent.

Oxymel Scillae.—A return to the old formula is advocated, owing to the difficulty of carrying out practically the evaporation to the proper degree.

Pilula Assafoetidae Composita and *Pulvis Cretae Aromaticus*.—These are said to be synonymous with the *pilula galbani composita*, and *confectio aromatica* of the London Pharmacopoeia. This is not the case, but an assimilation might be approached.

Pilula Phosphori.—The addition of soap to the present formula is said to be an improvement.

Pulvis Glycyrrhizae Compositus.—This preparation is seldom if ever used. The Prussian formula is largely used.

Spiritus Etheris Nitrosi.—Very general dissatisfaction with the present process has been expressed, and a reduction of nitric ether from 10 to 5 per cent. advocated.

Suppositoria.—The mixture of wax, lard, and oil of theobroma might well be substituted by oil of theobroma alone, as no better basis for suppositories could be found.

Tinctura Aurantii Recentis.—Proof spirit, it is stated, should be substituted for rectified spirit.

Unguentum and *Emplastrum Belladonnae*.—These should be prepared from the alcoholic extract.

Such are a few of the criticisms and suggestions that have been passed on the present Pharmacopoeia processes. These can be largely supplemented by the intelligent observation of many hundreds of pharmacists. Unless this is done much valuable information will be lost to the Revision Committee, and the forthcoming Pharmacopoeia will be so much the less perfect and complete.

In the various points mentioned we have only touched upon a few in the many embraced in the labours of the Revision Committee. There will be deletions from and admissions to the new Pharmacopoeia, as well as revision of chemical tests, description of crude drugs, definitions of physical properties, and a general correction of the various tables, &c., appended to the Pharmacopoeia; but the work to which the practical pharmacist can give the best assistance is in the direction indicated in the various points already alluded to.

THE PARCELS POST.

THE inauguration of the parcels post at the beginning of this month cannot fail to have a considerable effect on the business of the country. It provides facilities which other countries, with much more limited means of communication relatively to size, have enjoyed for a long time. So that the fact that these facilities have been at last provided is not a proof of such startling energy on the part of our Government as it has been represented to be. But troublesome arrangements seem to have been made with rare completeness, and on them the postal authorities ought to be congratulated. That the stores and the large London firms will be the first to feel the benefit of the new system in trade seems obvious, and we cannot doubt that bottles of medicine will contribute to some degree to the postal loads. But in every district the enterprising druggist will find means of utilising the parcels post to his own advantage. It is a fact, no matter what authorities say to the contrary, that the increase of facilities of obtaining medicine, or the reduction of difficulties as well as of expense, does and will promote its consumption. Chemists have sometimes argued that people will not take medicine unless they are forced to do so. It is wonderful that they should, but it is the fact that they will. Probably a good half of the medicine consumed is taken as a luxury; that is to say, it is taken by persons who do not really need it. Chemists who have faith in this theory will do whatever they can to encourage orders for medicines and other articles all round their centres by the parcels post.

THE BRITISH PHARMACEUTICAL CONFERENCE.

SOUTHPORT, where the Conference will meet on September 18 and 19, is the youngest town that has offered its hospitality to British pharmacists. In 1792, Mr. W. Sutton built on the sand-hills a comfortable inn, which his friends christened "The Folly." In 1867 the town was first constituted a municipal borough, and had a population estimated at 14,000. Now it numbers some 35,000, exclusive of Birkdale.

The head-quarters of the Conference will be at the Prince of Wales Hotel, quite near both the sea and Lord Street, the principal thoroughfare, of which the townsfolk are very proud. The meetings will be held in the large banqueting-room. A limited number of bedrooms has been retained, and intending visitors should make early application for them to Mr. Ashton, local secretary. The ordinary tariff of the hotel will be charged.

The attractions of Southport are all modern. The pier is 1,465 yards long, and a tramway, carrying passengers 1,200 yards up it, shortens it for bad walkers. There are "Winter Gardens and Aquarium" to be visited; the Glaciarium, which is a skating-rink of real ice, maintained at all seasons, the only one in the kingdom; splendid public baths, at which a special swimming entertainment will take place during the stay of the Conference.

On the afternoon of Thursday, Sept. 20, a garden-party will be given at the Botanical Gardens, which will be reserved for members and their friends. Musical entertainments will be provided by a first-class military band and a large company of Mr. Hallé's renowned choir. L. H. Grindon, Esq., will exhibit a choice collection of rare plants, and give an interesting botanical lecture. In case of bad weather visitors will be fully protected, and the local committee are anxious that all members should make arrangements to stay over the Thursday, as it is intended to make the garden-party both interesting and enjoyable.

The chemists of St. Helen's are making arrangements for the members to visit some of the chemical-works of their town, and, if the weather is favourable, daily steamboat excursions may be made to Lytham and Blackpool. Liverpool is 35 minutes distant by express train, and it is hoped that favourable terms will be granted for local railway travelling.

It will be seen from the report of the meeting of the Executive Committee on another page that promises of papers to be read have already been received from twelve gentlemen.

Through trains for Southport leave London (Euston station) at 11 a.m. and 3 p.m. And finally, a guide, with a map of the town and engravings of the public buildings, is published by Mr. Stephenson, Lord Street, for threepence.

The President's address promises to be the event of the Conference. It will be remembered that last year he treated the relation of pharmacy to the State in such style that his address attracted more attention from the public press than had ever been awarded to any of its predecessors. It is an open secret that the subject this year will be the relations of the State to pharmacy. It has been treated in uncounted letters, speeches, and more or less ambitious editorial articles; but the prevailing characteristic has been a striving after ends without any adequate appreciation of the means to be employed; a vague desire for something different from present circumstances, but indistinctly seen. Dr. Attfield is notoriously free from indistinctness of vision. He always knows what he means, and lacks not vigorous English to make others see it too. We understand that many correspondents have furnished him with facts illustrating the present state of Pharmacy in this country, and we anticipate a suggestive if not an absolutely convincing treatment of the subject.

ACTING AS AN APOTHECARY.

THE County Court trial of the Society of Apothecaries against Pearson, which we report elsewhere, is interesting on account of the light which it throws on the somewhat complicated relationships which exist in some of the populous districts of the metropolis between medical men, chemists, and those who are conveniently designated the "masses." Clearly the defendant had infringed the law, and clearly, too, the judgment of the Court against him was inevitable; his counsel made a gallant but a hopeless fight for him, but the plaintiff's representative could fairly describe the evidence as overwhelming. It is needless to dwell on these points, but before we form a too-ready judgment on any of the parties concerned it may be as well to realise if possible the surrounding circumstances. We want to say a word here for the really immense but half-ignored services and sacrifices rendered in these localities by many members of the medical profession. These are the great fields for the energy of young practitioners. The medical student has passed through his dreamy days, and has accomplished his longer or shorter career of rowdyism. In the last year of his curriculum he sets himself more seriously to his work. The mountain before him has come to look steeper and higher, the paths up it more crowded, the haronctey at the top more difficult of access, and his own genius somewhat less assured than just when he left school. He gains his hard-earned diploma, but he knows now that that is only the pass admitting him to the competition, not the crown of victory. And he finds out that it is in St. Giles, in Bethnal Green, in Lambeth, or in Westminster, that his most certain chances of employment and experience are to be found. Harley Street must wait. So he settles down. And among the myriads of mothers around him a few are sure to try the

new doctor. This is his opportunity. If, as is likely, the baby on which he first experiments has a complaint to which a Greek name can be reasonably attached, and if a bottle or two of "stuff" should bring it round, his fame spreads, and if his clients are sometimes slow in paying they are not slow in praising. No mother in the circle of the first mother's acquaintance will be satisfied until she has had the new doctor in her house, nor until her baby has had a complaint with as long a name as the other mother's baby's. It is hardly recognised, perhaps, how much the doctor's visits are thought of among the poor of London. The interest is far deeper and more real than that created by the curate's visits in the country. The doctor wields a magic power over disease, and to those people both disease and the "stuff" which does hattle with it, and so often conquers it, are very distinct entities.

But, from the doctor's own point of view, the associations can hardly be so pleasant. He can hardly help being a man of some culture and refinement, and he can have but rare opportunities to gratify his higher tastes. He gets accustomed no doubt, to suffering and death, but, still, the sad dramas of humble life which he is so often witnessing must strain his nervous organisation. Few occupations seem to call for rest and recreation so urgently as his, and none permit such relief so little. Add to this that he is likely to be mocked at by the medical papers for attending his patients so cheaply, or, on the other hand, regarded by dishonourable and drunken customers as a brutal tyrant if he seeks to recover his moderate charges for his services. There are, indeed, few men who better serve their day and generation than many of the unknown medical practitioners of London.

What was the exact nature of the "understanding" or "arrangement," if such there was, between the thirty doctors or any of them alluded to in the trial and the chemist who was the actual defendant did not come out. Probably there was nothing definite. That chemists can be of great service to doctors is obvious, and there does not seem to be anything necessarily wrong in cultivating such business. Indeed, we should urge chemists to be more willing than they seem to be to assist general practitioners on mutually advantageous terms. But in this case the services seem to have been carried much too far. One would like to know a little more of the way the system is worked amicably among so many rival doctors, and also to understand the principle on which both the work and the profits are shared, if, as one must suppose, they are shared, between Brooke Street, Grosvenor Square, and Stamford Street, Blackfriars.

BROKERS AND THE CITY OF LONDON.

THERE is a little Bill before the House of Commons endorsed by Messrs. R. B. Martin, Magniac, and Buxton, which proposes "to relieve the brokers of the City of London from the necessity of being admitted by the Court of Mayor and Aldermen and from all payments to the Chamberlain of that city." This Bill has been "bloeked" on behalf of the Corporation, and we suppose it is not likely to get into that statute-hook this year. The grievance which it is desired to remedy is that the City Fathers claim a fee of 5*l.* on admission, and a tax of 5*l.* annually from those persons who are admitted to the privileges of trading as brokers within the City of London. It does not seem, however, that the Guildhall powers have been very strict in enforcing their claim, for at a meeting of brokers held at the Baltic last week, it was stated that, while there are 4,500 firms publicly advertised as brokers in the City, only 1,882 are called upon

to pay to the City. The aldermanic generosity in this matter is not quite understood, but uncharitable persons have implied that it is an outcome of that prudent discretion which prefers to be satisfied with that which it can get without much trouble, and does not care to stir up a strife which might end in losing all. The tax originated in the reign of Queen Anne, when it was found desirable to abolish the office of Garbler, from which the City derived some 300*l.* a year. As compensation a tax of 2*l.* on the brokers was granted. Later on, when the docks were built, an income of 750*l.* a year was further lost by the destruction of certain gauger's profits, and again compensation was awarded by increasing the brokers' tax to 5*l.* per annum. The tax now brings in 9,500*l.* per annum, so that all the Corporation have to complain about is the approaching end of that comfortable little sum. It does not appear that the City in any way supervises or guarantees the respectability of these brokers, and a Royal Commission on the City in 1854 reported that there was no public benefit in maintaining the nominal control. Still an endowment of this kind, which seems to have been legally granted, is hard to get rid of, and if it is only to be shifted from brokers to someone else, the City will probably, as usual, only improve its position.

THE TRANSMISSION OF DISEASE FROM CEMETERIES.

MR. EDWIN CORBETT, Her Majesty's Minister at Rio de Janeiro, has transmitted to Earl Granville some preliminary reports emanating from a medical commission appointed by the Brazilian Government to inquire into the origin and nature of yellow fever, which has been very prevalent in the city during last summer. Mr. Corbett's communications were written in the course of April, and with them are enclosed reports which have been written by Dr. Domingos Freire, a member of the Commission, which, confirmed by his colleagues, have been published in anticipation of the complete account of their investigations which is to follow. Dr. Freire states that he had taken earth from the grave of a person who had died from yellow fever, and had been buried a year previously. The earth was taken at a foot beneath the surface. He does not state how deep the body had been buried. The earth did not present any remarkable features in appearance, smell, or other external character; but on examining it by a microscope which magnified 740 diameters, he found in it myriads of microbii, exactly identical with those he had found in the vomitings, the urine, the blood, and other organic liquids of persons sick with yellow fever; that is, cells of the *cryptococcus* and *anthogenicus*, at various stages of development, from the size of a black point difficult to perceive in the field of the microscope, to that of round corpuscles of various sizes, and in colour black to grey. Many of these organisms were making spontaneous movements.

The obvious inference from this discovery is, that every grave of a person who has died from yellow fever becomes the nursery for myriads of germs of the disease, which may be wafted by the winds or carried by the rains to the neighbouring city, thus almost inevitably perpetuating the epidemics.

These observations are no doubt of importance; nor do we desire to oppose the resulting conclusion in favour of cremation. We cannot doubt that the general practice of cremation in place of inhumation would be attended with appreciable benefit to the health of the living. But Dr. Freire's report, so far as it appears in the British Foreign Office reports, is not conclusive. Evidently he went to the cemetery and obtained this earth with a preconceived

theory, while his assertion that the microbii he found, some of which were hardly perceivable in the field of the microscope, and which varied so much in size and colour, were "exactly identical" with those he had found in the organic liquids of persons sick of yellow fever, clearly needs corroborative pathologic evidence. In a subsequent communication sent by Mr. Corbett, Dr. Freire records various experiments proving the transmission of the 'disease by injection of blood from the heart of a person who had died of yellow fever into the veins of rabbits and guinea pigs, but he only alludes rather vaguely to an experiment made with the infected earth. "A guinea-pig, whose blood examination showed was in a pure state, was shut up in a confined space in which was placed the earth taken from the grave. In five days the animal was dead, and its blood was proved to be literally crammed with the *cryptococcus* in various stages of evolution." Inoculation of blood into a rabbit, from the rabbit to a guinea-pig, from the guinea-pig to another, and once more, occasioned death in from 18 minutes to a few hours, while in the case of the earth it appears five days were necessary, while the conditions and precautions to prevent the possibility of error were not detailed.

A VILLAGE chemist, having a vacant space on his door-post, authorised a local genius to affix a legend thereto during his own brief absence. On returning he was startled to find the announcement, amid elaborate flourishes, "Physicians' prescriptions carefully confounded."

* *

"A CURIOUS case was brought recently before the Superior Court of Maryland, U.S.A., in which a rejected candidate at the examination of the College of Physicians and Surgeons of Baltimore petitioned the Court to issue a writ of *mandamus* upon the Faculty that they should issue to him their diploma. The Faculty filed a demurrer, which was allowed, but an appeal was granted."

* *

MR. JAMES PLATT, the author of the "Business" series of books, points out a "serious defect" in the parcels-post system. The Post Office does not sign for the parcels received, so firms are liable to robbery, without fear of detection, by the porters who take their parcels to the office. As it is understood that the office takes no responsibility, the least they can do is to sign, so as to protect senders, and reduce the chances of theft as much as possible. For their own employes' sakes they should have all parcels signed for at prominent stages of the route.

* *

DR. R. C. SMITH, of Ardwick, Manches'er, narrates in the *British Medical Journal* a suggestive event, which, he says, occurred some years ago. A gentleman, a friend of his, had been recommended to use precipitated chalk to clean his teeth. He went to a chemist to procure some. The principal, not being at home, had left his shop in charge of a lad about 15 years old, who had been promoted from the condition of errand-boy to that of assistant. The youth had sold red and white precipitate scores of times, but his knowledge had not gone so far as to know the meaning of the word precipitate, nor had he heard of its connection with any other drug than the two last mentioned; but, from the colour of chalk, he thought it could not be the red that was required, so he at once weighed out an ounce of the white variety. The gentleman unsuspectingly took it home, commenced to use it to his teeth with a stiff brush, making his gums bleed at the same time. After a few days' use he presented himself to the doctor suffering from intense pyalism, with fetid breath, swollen jaws, and teeth ready to drop out, as well as the other symptoms of mercurial poisoning, altogether a piteous object. A little inquiry into the cause of his condition revealed the facts above stated. The patient was, of course, greatly irritated as the cause of his illness dawned on him, but charitably forgave and overlooked the matter, all parties concerned in the affair being neighbours.

THE fear of cholera has brought to the daily press a number of contributions of greater or less value. One of the most interesting is a letter by Major Wm. Vaughan Morgan, Treasurer of the London Homœopathic Hospital, on the homœopathic view of the matter. During the epidemic of 1854 the wards of the hospital were cleared of other patients and thrown open for the treatment of cholera. The four principal remedies used were Rubini's tincture of camphor, cuprum aceticum veratrum, and arsenicum. The deaths under the treatment at the hospital amounted to only 16·4 per cent. in an epidemic in which, as the analysis furnished by the Committee of the Medical Council showed, the deaths under the most successful treatment pursued in other Metropolitan hospitals were at the rate of 59·2 per cent.

* *

A CERTAIN Austrian, Dr. Schmidt, died a few years ago and left 50,000 florins for the foundation of a chair of homœopathy in the Vienna medical faculty. Some time ago the Minister of Education asked for the opinion of the faculty in respect to this legacy, which, it is needless to say, was not favourable. In consequence the minister has just refused the legacy. What is to be done with it is not at present known.

* *

THE German Apotheker Verein will hold its annual meetings this year at Wiesbaden, on September 4, 5, 6 and 7. An exhibition of objects of pharmaceutical interest will be open during those days, and after the business is over in the afternoon of September 6, a great dinner will be held in the Kurhaus, winding up the evening with a garden festival and a display of fireworks. The next day will be occupied by an excursion on the Rhine to Assmannshausen, a walk on the Niederwald and a visit to the National Monument, the Watch on the Rhine, which it is expected will be then nearly finished. For the whole programme members pay 15s. each, or 10s. each for ladies.

* *

RETURNS of results of cases treated in all the hospitals (including the London Homœopathic) were furnished after the epidemic to the General Board of Health, but the return from the Homœopathic Hospital were excluded by the committee of the General Medical Council from the analysis which was made for the information of the Board of Health, and was afterwards published as a separate parliamentary paper by a special resolution of the house. Dr. McLoughlin, one of the medical inspectors of the Board of Health, was so far converted that he sent a subscription to the hospital, and expressed a wish to be treated by a homœopathic physician if he were ever struck down by cholera.

* *

A LAW was recently passed in the Michigan Legislature, allowing a person to make his will, and then during his lifetime petition the Probate Court for citations to all his heirs and such other persons as he deemed necessary to attend an examination into his sanity and testamentary capacity. If it shall appear that the person was fully competent to make a will, a decree to that effect shall be made, and the question of incapacity cannot be raised again, except upon appeal from the decree. If the testator subsequently becomes insane, and dies in that condition, his will, nevertheless, cannot be questioned on this ground. The contents of the will are not to be made known until after the death of the testator.

* *

A NEW inspector of weights and measures has distinguished himself by summoning three chemists in Uxbridge for the use of weights and measures which had been passed by his predecessor. Many of the weights were unstamped, which shows that the provisions of the weights and measures Act had not been properly enforced. While we sympathise with the unfortunate defendants in the unpleasant position they have occupied, we must use their fate to warn others not to be satisfied till they are sure that the law in its strictest interpretation has nothing against them. The expense and trouble of complying with the Act are insignificant compared with the loss of reputation sustained by detection in offences against it, even when these are unintentional.

THE aniline dyes have often been quoted as one of the particular triumphs of the century. This complacent delusion, like so many others, has to be surrendered. They and the success they have achieved are only indications of the tendency of the age, long since discerned at Chelsea, to rush headlong towards shoddy, malfaisance, and Beelzebub. Mr. Broomhall, of Mincing Lane, whose name seems somehow associated with indigo, asks the readers of the *Times* a few questions. How long does a new carpet look decent? How long will it stand sunlight? How often have shopkeepers to cut off lengths exposed in their windows? Where are the carpets dyed with the old natural dye stuffs? Mr. Broomhall's answer to these conundrums is given generally in his last sentence that this is the age of shoddy and aniline. But these high-toned philosophers who settle everything with the term shoddy have yet something to learn. Do they know that even shoddy has its use? With many of us the question is not between cheap carpets and dear ones, but between cheap carpets and none. A sixpence does not last as long as a shilling, but it is poor form to abuse the age because sixpences are more abundant than they used to be.

* *

Two years ago a firm of biscuit-makers stated in the *Times* that, according to the postal tariff then in force, they could post samples from Belgium to this country at half the rates charged if posted and delivered here exclusively. The matter was mentioned in the House of Commons, and the Postmaster-General said it was an anomaly which ought not to exist; but he intimated that it would be removed when the Parcels Post, then in contemplation, came into operation. This has not been done. The same firm again wrote to the *Times* explaining that on August 4 they shipped a large quantity of samples to Ostend, which were there posted to England. Two hundred and fifty 4 oz. samples can be posted there for an English sovereign, a saving of 1*l.* 1*s.* 8*d.* on the quantity. The 1*s.* 8*d.* more than pays the freight and other expenses on a large quantity, and the British post-office gets about one-third of a penny for work for which it might just as well have the whole penny, but for which it still insists on twopence.

* *

AT Aberdeen a druggist asked to supply salicylate of soda for rheumatism, gave the applicant six powders containing 15 grains each. The first dose produced prolonged drowsiness, ending in death, the symptoms being those of narcotic poisoning. An inquest was held, and one powder was examined by a local medical practitioner, who only tested for the salicylate and found it. The widow of the deceased sued the chemist for the loss of her husband on the ground that the salicylate must have been mixed with some other substance, and that he had not exercised due care and knowledge in supplying it. She claimed 750*l.* damages, but offered through her agent to accept 150*l.* in satisfaction of all claims. This offer was refused, but when the day of trial approached, the defendant compromised the matter by paying 400*l.*, claiming at the same time that the poisonous admixture could not have occurred since the salt had been in his hands, and that he had purchased it of a respectable house whom he was entitled to trust. A few days later an analysis of the powder by Dr. Stevenson Macadam, was published in the papers, and revealed the presence of more than 50 per cent. of morphia hydrochlorate. The *Standard*, commenting on the case, makes the unwarranted assertion that many deaths by accidental poisoning, by the sale of a noxious drug instead of a harmless one, occur every year, and goes on to say "it is well that every druggist should impress it strongly upon his mind that he is liable for damages for carelessness leading to fatal results either on the part of himself or his assistant. The risk of punishment in a criminal court is, he knows, infinitesimally small. However gross the carelessness displayed, the verdict of the coroner's jury is certain to be death from misadventure, with, perhaps, a rider expressing a strong opinion as to the conduct of the dispenser. But beyond this, and a censure from the coroner, the matter does not go. The reflection, however, that if no serious consequence to his person is likely to arise, he may be mulcted in damages, is likely to cause chemists to be not only extremely careful themselves, but most particular as to the attainments and practical knowledge of their assistants."



Literary Notes.

Reports of Trials for Murder by Poisoning, with Chemical Introduction and Notes on the Poisons Used. By G. Lathom Browne, Barrister-at-Law, and C. G. Stewart, senior assistant in the laboratory of St. Thomas' Hospital. London: Stevens & Sons. Pp. xvi. and 604.

IN this work the authors have collected, evidently with great care, reports of thirteen trials for murder by poisoning, and have edited these for the use of the legal and the medical profession in such a manner as to present not only a clear account of the history of each case, with a summary of whatever legal points may have occurred, but have also made an especial aim to indicate with accuracy and with all necessary fulness the expert testimony of analysts and physicians. Wherever this class of evidence has been contradictory, the statements of the opposing witnesses have been brought into proximity, and the chemical editor has added such a review of the evidence as to give to readers with a sufficient basis of scientific education a very satisfactory acquaintance with most difficult questions which have occurred in these cases. The trials selected for review in this treatise are those of Tawell, Ball, and Walker (prussic acid); Palmer, Dove, and Barlow (strychnia); Madeline Smith and Ann Merritt (arsenic); Pritchard, Smethurst, and Winslow (antimony); and McConkey and Lamson (aconitine). It appears to us that these reports have been elaborated and commented on with great skill, and, that being so, the information given is likely from time to time to prove of extreme value.

The Extra Pharmacopœia of Unofficial Drugs and Chemical and Pharmaceutical Preparations. By Wm. Martindale, F.C.S. With References to their Uses, abstracted from the Medical Journals, by W. Wynn Westcott, M.B. (London: H. K. Lewis.)

It can hardly be disputed that the period which has elapsed since our last Pharmacopœia was issued has been more prolific than any previous sixteen years in the introduction of new medicines. Whatever may be the amount of respect theoretically due to the Pharmacopœia, it is a matter of fact that the medicaments stamped with its approval form but a small portion of the armoury of the modern physician, while the pharmacist who confines his studies to the worthy volume is very antiquated indeed. But with all the information which enterprising gentlemen bestow upon us with philanthropic, scientific, or commercial intentions, it is still difficult to find conveniently packed between one pair of covers the pharmaceutical and therapeutic details of these many new remedies which have come into use. Mr. Martindale's work seems to supply this deficiency. Very concisely he gives such particulars of the pharmacy and chemistry of such non-official remedies as can at all claim to have established a footing; also adding information respecting certain official preparations for which new uses have been recently sought out. To each section his coadjutor adds a most useful summary of the principal notices of these medicines which have been published.

PART II. of Dymock's "Vegetable Materia Medica of Western India" carries the work into the Umbelliferae.

QUAIN'S "Dictionary of Medicine," published by Messrs. Longmans & Co., must take rank amongst the most remarkable of successes in modern medical literature. The sale has already reached 7,000 in this country, and a large issue has been sold in America.

THE "Midland Medical Miscellany" for August has a timely article on "Christian" quackery, commenting in terms of well-deserved reproach on the hypocritical tone of the advertisements, and sometimes of the editorial puffs of quack remedies in the columns of the so-called "Christian" papers. Somebody's method of treatment, for instance, is described as "a discovery derived from the Creator's own

provision for man's wants," while the same person's magnetic appliance is the "remedy in the hands of God for indigestion and all its concomitant evils." This style of phraseology, concocted for a special class of readers, would seem to answer, for the flow of it would seem to be more abundant than ever; we have ourselves, in past times, more than once referred to it. But one fact mentioned by the "Midland Medical Miscellany" deserves to be specially mentioned. It is that the "War Cry," General Booth's organ, which so shocks the refined piety of its more cultured contemporaries, "absolutely declines to insert advertisements of this character, thereby showing some sense of the distinction between the service of God and that of Mammon." Let that be remembered to the credit of the General.

Scientific Notes :

On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

DISTRIBUTION OF SOME POISONS IN THE HUMAN ORGANISM IN POISONING CASES.

DR. C. BISCHOFF, analytical chemist to the Berlin police authorities, has lately given his special attention to the distribution of some poisons in the human organism *post mortem*, and publishes the results of his researches in the *Berichte der deutschen chemischen Gesellschaft*, June 11, 1883.

Cases of poisoning with carbolic acid, potassium chlorate, oxalic acid, and prussic acid were examined.

Carbolic Acid.—The author remarks that this substance is formed spontaneously in corpses undergoing decomposition. He found the following percentage in a perfectly fresh corpse, in the case of a man who had drunk a quantity of a strong aqueous solution of carbolic acid:—

Blood	0.0231	Heart muscles	0.0367
Liver	0.043	Brain	0.0217
Kidneys	0.062	Urine	0.011

Potassium Chlorate.—In contact with moist organic substances, and especially blood, potassium chlorate is very rapidly reduced to chloride, so that in many cases no positive evidence of poisoning with this salt can be obtained.

Oxalic Acid.—In cases of poisoning with the acid or its salts, a quantity of minute octahedra containing calcium are found in the stomach and its membranes. Free oxalic acid is also found in the cesophagus, while liver, heart, kidneys, and urine contain various oxalates.

Prussic Acid.—The chief quantity of the poison is found in the blood. In cases of acute poisoning with prussic acid, the acid does not pass over into the urine.

A MODERN DR. EISENBART.

A CURIOUS case has lately occupied the Berlin Law Courts. A certain Dr. Brozeit, who had come from a provincial town to settle in Berlin, began his practice in the latter city by publishing in the local papers some rather bombastic advertisements, in which, amongst other things, he stated that diseases were of two kinds: (a) those which no one but himself could cure, as consumption, cancer, rickets, &c., and (b) those which other doctors might be able to manage.

Dr. Groszer, who is editor of a medical paper, criticised therein Dr. Brozeit's proceeding somewhat sharply, which comment was replied to by another advertisement, wherein Dr. Brozeit offered to bet that his system of therapeutics was worth more than that of all the medical schools put together. Dr. Groszer replied in his paper that Dr. Brozeit had "vomited an advertisement."

A summons on the part of the offended "Eisenbart" was the answer, and the Courts had to settle the dispute.

For the expression "vomited," the First Court (Berlin Land Gericht) sentenced Dr. Groszer to 3m. damages and two-fifths of the costs.

Not satisfied with this sentence, Dr. Brozeit tried a higher Court, which, however, dismissed the case with costs to the plaintiff.—*Berliner Tageblatt*.

SOME OBJECTIONS TO THE EMPLOYMENT OF BORACIC ACID FOR PRESERVING FOOD.

BORACIC ACID has of late been much talked about, and either alone or mixed with other substances actually employed as a food preservative. In a paper by J. Foerster, sent to the *Berichte der deutschen chemischen Gesellschaft*, July 23, 1883, he points out that, from the results of diet experiments, carried out under his direction, the protracted consumption of even small quantities of boracic acid with the daily food is, in his opinion, detrimental to proper nutrition.

The author found that, living upon a diet consisting exclusively of milk and eggs, with and without the addition of boracic acid, and carefully examining the faeces in all cases where boracic acid had been consumed, there was an increase in the excretion of dry substance and nitrogen, that more than the normal quantity of bile was excreted, and that albuminous constituents of the food were unnecessarily lost.

THE CHEMICAL COMPOSITION OF FISH.

THE subjoined table of fish analyses is taken from a paper by W. O. Atwater in the *Berichte der deutschen chemischen Gesellschaft*, July 23, 1883. The proteine is calculated by multiplying the amount of nitrogen by 6.25, the total of water, proteine, fat, and ash represents 100. The percentage of dry substance is given separately.

	Per Cent.				
	Water	Dry Sub- stance	Proteine	Fat (Ether Extract)	Ash
FRESH FISH—					
Cod (<i>Gadus morrhua</i>), average of five samples ..	82.04	17.96	16.38	0.36	1.22
Herring (<i>Clupea harengus</i>) ..	68.67	31.43	18.99	10.95	1.49
Mackerel (<i>Scomber scombrus</i>), average of six samples ..	73.10	26.90	18.57	7.07	1.26
Perch (<i>Perca fluviatilis</i>), average of two samples ..	79.20	20.80	18.73	0.83	1.24
Pike (<i>Esox lucius</i>) ..	79.73	20.27	18.66	0.58	1.03
Salmon (<i>Salmo salar</i>), average of three samples ..	62.93	37.07	22.93	12.81	1.33
Sturgeon (<i>Acipenser sturio</i>) ..	78.59	21.41	18.08	1.90	1.43
Trout (<i>Salvelinus fontinalis</i>), average of three samples ..	77.57	22.49	19.18	2.10	1.21
Roes (hard), average of 245 samples ..	73.19	26.81	21.34	3.89	1.58
FISH WITH SPAWN—					
Salmon (<i>Salmo salar</i>), male ..	75.34	24.66	19.17	4.37	1.12
" " female ..	78.34	21.66	17.66	2.83	1.17

		Per Cent.					
		Salt	Water	Dry Sub- stance	Proteine	Fat (Ether Extract)	Ash
PRESERVED FISH (smoked, dried, &c.)—							
Cod (dried) .. .. .	.. .. .	2.88	14.75	85.25	75.41	1.84	5.12
Mackerel (salted) .. .. .	.. .. .	10.60	42.57	57.43	21.34	22.80	2.69
Cod (salted), av. of two samples .. .. .	.. .. .	20.58	51.77	48.43	24.40	0.34	3.11
Herring (smoked) .. .. .	.. .. .	11.66	34.38	65.52	36.76	15.74	1.46
PRESERVED FISH (in tins)—							
Mackerel .. .. .	.. .. .	1.93	63.38	31.62	19.69	8.70	1.30
Pilchard .. .. .	.. .. .	—	56.62	43.38	24.98	12.76	6.64

The author purposes publishing, in a short time, analyses of oysters, lobsters, and a number of other invertebrates used for food, as well as the results of some diet experiments as to their practical nutritious value.

WOOD ALCOHOL.

STEARN'S *New Idea* states that the refiners of methyl (or wood) alcohol have been turning out a product almost entirely free from the empyreumatic odour peculiar to crude wood naphtha. This has been put upon the market under the name of "alcoholene" and similar trade names. It

being considerably less in cost than ethyl (or corn) alcohol, it has been, we are credibly informed, used by some unscrupulous jobbers of drugs for adulterating the latter. It has been added in as high a proportion as one-third without being readily detected in the hands of inexperienced persons.

TINCTURE OF ACONITE.

AN anonymous writer in the *New York Medical Times* (a homœopathic journal), records some experiments undertaken with a view to ascertain the strength of the tinctures of aconite generally prescribed, rather than to discuss the therapeutic merits of the preparations. The aconitia strength only is given, but the writer does not infer that the aconitia strength of a tincture of aconite is a true test of its comparative value in medicine, but that if the right menstruum is used for their extraction, the same percentage of all the other active principles of the part used will be dissolved.

The tinctures used were tincture of aconite root, U. S. P. (which is made from the root), of the manufacture of one of the most reliable druggists; a tincture from the green root, and one from the plant, both imported, and obtained from one of the best known dealers in New York. One part of each was used. Each was acidulated with sulphuric acid and evaporated at a temperature not exceeding 100° F. to four fluid ounces; this was shaken with ether to separate the green oil. After the oil was removed as nearly as possible by a syphon, the remainder was evaporated at the same temperature to a syrupy consistence. This extract was again shaken with fresh portions of ether until the oil was entirely separated, warmed until all traces of ether were expelled, and then mixed with a small quantity of distilled water; to this mixture was added carbonate of magnesia slightly in excess to precipitate the aconitia. After setting aside for three or four hours, this was shaken with several times its bulk of ether, set aside again and the ether decanted, the remainder shaken with ether again, the two solutions mixed and left to evaporated spontaneously: the residue was impure aconitia; this was again mixed with water and dilute sulphuric acid added gradually until a solution was effected; this mixture was carefully saturated with aqua ammoniæ, and the precipitate formed was washed with distilled water, dried and weighed.

The weight of the product was as follows:

	Grains
From the green plant ..	1½
From the green root ..	6½
From the powdered root (official) ..	11½

The author seems to know how the imported tinctures were made. He gives the relative proportions of ingredients, as under:

	Oz.	Pint
Tincture aconite root, U. S. P. ..	6	to 1
" " green herb ..	2½	1
" " " root ..	1½	1

The result tends to prove that the active principles of the same plants can generally be more easily and more thoroughly dissolved by the right solvent from the green than from the dried portion of the plant, for if we obtained 6½ grains from the equivalent of 1½ ounces of dried root from the green root, and only 11½ from 6 ounces of the root when dried, it shows over twice the yield in favour of the green root process, which shows that a good specimen of aconite root contains about nine-tenths per cent of aconitia, and that less than four-tenths per cent. are dissolved out by the U. S. process for making the tincture.

The green preparations used were the imported homœopathic mother tinctures.

FINE FOR CARELESS TREATMENT.—A trial is reported in the Indian medical papers of a medical man named W. K. Dutt, L.F.P. and S. Glas. and L.R.C.P. Ed., who was charged with having caused the death of a child, five years old, by administering an enema containing 144 grains of carbolic acid, being 1 in 60. The jury found the death had been caused by a rash and negligent act, but strongly recommended him to mercy. He was fined 500 rupees.

MISCELLANEOUS FORMULÆ.

LOSS OF HAIR.—In case of general thinning and loss of hair when the exciting cause has been largely due to dandruff of the scalp:—

Tinct. of saponin	3 1½
Fluid petroleum	3 1
Mercury oleate	3 1½

Sig.:—Shake well, after which pour a small quantity in the palm of the hand, rub between the hands, and then apply with friction to the scalp.—*Medical Times*.

WATERPROOF LAC.—The lac with which gossamer and other articles made out of guttapercha were covered to give them their shiny appearance, but without having any detrimental influence upon their waterproof properties, is made thus:—

Gum lac	Grammes 600
Borax	200
Aniline black	2-3

The borax is dissolved in hot water, the lac gradually added, the whole boiled to perfect solution, and the aniline at last added. This lac is waterproof, and is applied by being spread over the article with a linen rag dipped into the solution.

More expensive is the following recipe:—One part of common black guttapercha is dissolved in 5 to 6 parts of sulphuretted carbon, and applied with a camel's-hair brush. This lac possesses the property of always being elastic, no matter to what temperature of our atmosphere it may be exposed.

TO FASTEN LABELS TO TIN.—According to a writer in the *Pharmaceutische Centralhalle* a good method for making labels adhere to zinc or iron is to carefully roughen the surface of the metal with sand-paper, then to coat it with a solution of an alkaline silicate, and, lastly, apply the label. It is important that the silicate solution should be painted on the roughened metal, and not on the label.

A PALATABLE COUGH MIXTURE.—The most elegant and palatable cough mixture ever prescribed by Dr. J. Milner Fothergill is, he says, the following:—

Syr. scille	5j.
Acid. hydrobromic, dil.	5ss.
Spirit. chloroform.	5ss.
Aque	3j.

TO RESTORE FADED INK.—In order to restore faded ink all that is necessary, according to the *Boston Journal of Chemistry*, is to moisten the paper with water and brush over the writing with a solution of sulphide of ammonium. The ink will become black immediately, from the formation of the black sulphide of iron. Of course this means of restoration is not applicable with aniline inks.

RENOVATING OLD OIL-PAINTINGS.—In cleansing old paintings that have become dingy with soot and coal-dust substances are frequently employed that injure the painting by acting on the lighter and more delicate tints and shades. Von Bibra has discovered a method which, according to Wieck's *Gewerbe Zeitung*, is both safe and rapid. The painting is first removed from the frame, and the dust and smoke brushed off with a pencil or feather. After this it is washed with a sponge dipped in well-water. It is next covered with a thick layer of soap; shaving soap is the best for the purpose, because it remains moist and does not dry on. After the soap has been on eight or ten minutes it is all washed off with a strong brush or pencil, adding a little water if necessary. The soap that still adheres is rinsed off sufficiently with water, and the picture left to dry. When completely dry it is further cleansed with nitro-benzol. This chemical preparation is also known as nitro-benzine, artificial oil of bitter almonds, essence of mirbane, and is a yellowish, oily (very poisonous) liquid, with a powerful smell of bitter almonds. It is formed when coal-tar benzol is mixed with fuming or concentrated nitric acid under suitable precautions. The nitro-benzol is poured into a dish or soup-plate, and a clean linen rag dipped in it, and passed over the painting. This quickly removes all the adherent dirt. This linen rag must be frequently exchanged for a clean one. When the rag remains clean after going over it

repeatedly the cleansing is finished. If the colours look dull after going over it the last time and letting it dry, it is given a thin coat of the finest olive oil, and after a while must be varnished with a good, quickly-drying varnish. It is claimed that the dirtiest oil-paintings, when cleansed as above described, acquire their original colours and freshness.

Medical Cleanings.

TREATMENT OF HAY-FEVER.—Mr. W. F. Phillips, Andover, records in the *British Medical Journal* a case of hay-fever successfully treated by belladonna. He gave first, succus belladonnæ m. xxiv., (afterwards m. xxx.) in aquam ad 5iij. A teaspoonful every hour until relieved.

FOR FACIAL ERYSIPELAS, says the *Chicago Medical Review*, the following may be painted over the parts affected once every two hours, a thin layer of cotton being placed over the parts immediately afterwards: Ac. carbolici, sp. vini rect., of each, ʒj.; sp. terebinth, ʒj.; tr. iodinii, ʒj.; glycerine, 5v. M.

THE BLUE MAN OF MISSOURI is mentioned in the American medical journals. When about fifteen, he took five drops of a solution of nitrate of silver, containing 20 grains to the ounce, and continued this for five or six months. At the end of that time he observed that his face and hands were becoming dark. This colour has become permanent, and hence his sobriquet. Nitrate of silver is sometimes used as a remedy in epilepsy.

DR. BANKS, of Dublin, Senior Physician in Ordinary in Ireland to Her Majesty, Regius Professor of Physic in the University of Dublin, representative of the Royal University on the General Medical Council, has been offered a knighthood, which he has respectfully and gratefully begged to be allowed to decline. A knighthood is understood to be a lower grade of honour than a baronetcy, and as the higher distinction is that wherewith English and Scotch physicians to Royalty are generally decorated, Dr. Banks has, we think, most properly refused to permit the medical profession in Ireland to be thus slighted through him.

HOSPITAL SUNDAY.—The collections in London this year reached 32,243*l*, which was rather less than was received last year. The Distribution Committee seems to have taken great pains to apportion the money, which was divided between ninety-seven hospitals and fifty-one dispensaries. The largest sum, 3,011*l*, was paid to the London Hospital. Sir E. H. Currie remarked that 30,000*l*. was hardly a sum worthy of the vast wealth of the metropolis, and he mentioned that one church alone (St. Michael's, Chester Square) had sent in 1,000*l*.

ADMINISTRATION OF CHLOROFORM TO SLEEPERS.—We read now and then, says the *Scientific American*, of cases in which burglars are supposed to have rendered their victims unconscious by holding cloths wet with chloroform to keyholes before entering an apartment. Of course the absurdity of such a fiction is sufficiently apparent. Whether sleepers can be made to pass from natural to chloroform-sleep, if the chloroform is held near to the face, is still a question. Sometimes the experiment has succeeded, but in five experiments recently made to determine the fact, every one of the sleepers experimented upon woke at the expiration of three minutes, before they had come under the influence of the drug.

MEDICAL BARONETCIES.—So far as we (*British Medical Journal*) can learn, twenty-six baronetcies have been conferred on members of the medical profession during the last hundred years. George III. bestowed baronetcies on Sir William Farquhar (1796), Sir Richard Jebb,* Sir Everard Home,* and Sir Henry Hallford (1809). George IV. gave baronetcies to Sir M. Tierney* and Sir Astley Cooper (1821). William IV. conferred baronetcies on Sir Charles Mansfield Clarke (1831), and Sir Benjamin Brodie (1834). We believe the following is a complete list of the baronetcies bestowed on members of our profession by Her Majesty: Sir James Clark (1837), Sir Henry Marsh,* Sir Philip Crampton (1839), Sir Henry Holland (1853), Sir Charles Locock (1857), Sir William Fergusson

(1866), Sir James Simpson (1866), Sir Dominic Corrigan (1866), Sir Thomas Watson (1866), Sir William Lawrence (1867), Sir William Jenner (1868), Sir James Paget (1871), Sir Robert Christison (1871), Sir William Gull (1872), Sir George Burrows (1874), Sir Spencer Wells (1883), Sir Andrew Clark (1883), Sir Prescott Hewett (1883). The baronetcies marked * are extinct. Of the eighteen medical baronets created during the present reign eight survive. Of the eighteen Victorian baronetcies, eleven have been given to physicians, five to surgeons, and two to obstetric physicians. All the eight medical barones now living practise in London.

BANKRUPTCIES AND LIQUIDATIONS.

A FIRST meeting of the creditors of Frederick Charles Moss Millar, chemist, of Woodland Leigh, Braddons Hill Road East, Torquay, was held at the offices of Messrs. Hooper & Woollen, at Torquay, on July 20. Mr. A. J. Davy was elected chairman. The statement of affairs produced showed the amount owing to unsecured creditors to be 313*l.* 4*s.* 4*d.*; creditors for rent, rates, and taxes, 29*l.* 4*s.* 7*d.*; total liabilities, 342*l.* 18*s.* 11*d.*. Assets, consisting of furniture at Woodland Leigh, Torquay, estimated to be worth 150*l.*. Liquidation by arrangement was agreed on. Mr. A. J. Davy was appointed trustee, with Messrs. T. Oliver and T. Viccars as a committee of inspection. Messrs. Hooper & Woollen were entrusted with the registration, and were also appointed solicitors to the trustee.

C. W. SMITH, Manufacturing Chemist, Birmingham.

THE debtor, described as residing at Woodcroft, Gravelly Hill, near Birmingham, and carrying on business as a manufacturing chemist under the style or firm of "Cooper & Smith," and "Cooper, Smith & Co.," at Catherine Street, Aston, Birmingham, lately trading in co-partnership with Charles Banks Cooper, under the style or firm of "Cooper & Smith," and "Cooper, Smith & Co.," at Catherine Street, Aston, Birmingham, filed his petition for liquidation in the Birmingham County Court, on July 4, before Mr. Registrar Parry, with liabilities estimated at 10,500*l.*, and assets not yet ascertained. Mr. Wenham was appointed trustee.

W. ALLDRIDGE.

THE first general meeting of the creditors of this debtor, described as a chemist, druggist, and drysalter, of 39 and 103 Summer Lane, Birmingham, was held on July 11, at Birmingham. The statement of affairs showed liabilities to unsecured creditors, 1,165*l.* 7*s.* 1*d.*; creditors fully secured, 681*l.* 12*s.* 5*d.*, estimated value of securities, 700*l.*, surplus, 18*l.* 7*s.* 7*d.*; creditors partly secured, 187*l.* 19*s.* 7*d.*, less surplus from fully-secured creditors, 18*l.* 7*s.* 7*d.*—169*l.* 12*s.*; creditors to be paid in full, 102*l.* 9*s.* 11*d.*; total debts, 1,334*l.* 19*s.* 1*d.*. Stock-in-trade estimated to produce 165*l.* 14*s.* 3*d.*; book debts about 29*l.* 12*s.* 11*d.*, estimated to produce 25*l.*; cash in hand, 4*s.*; fixtures and fittings estimated to produce 76*l.* 15*s.*; property, as per list (G), 74*l.* 7*s.*; assets, 342*l.* 0*s.* 3*d.*, less creditors to be paid in full, 102*l.* 9*s.* 11*d.*; total assets, 239*l.* 10*s.* 4*d.*. Mr. Harrison, accountant, said the debtor, who carried on two businesses in Summer Lane, one of which was profitable and the other unprofitable, commenced trading thirty-four years ago without any capital. Six years ago he believed he had a very substantial surplus beyond his liabilities, but at that time his business began to fall off, and since then the condition of trade had been too much for him to contend with. His assets were decreased to the extent of 500*l.* by the depreciation which had taken place in the value of certain property. Mr. Johnson stated that the debtor had been robbed by his assistants; moreover, he had neglected to keep proper books, and consequently was unaware of his position for some time. On debtor's behalf he had no offer to make. It was decided to liquidate the estate, and Mr. C. H. Harrison was appointed trustee, with a committee of inspection.

Personalities.

MR. E. R. COOK, of the East London Soap Works, Bow, E., has been accepted as the second Liberal candidate for South Essex at the next election.

MR. M. V. WRIGHT's business at High Street, Stratford, E., has been disposed of to Mr. Burt, through the agency of Messrs. Taylor & Co., of 38 Walbrook, London, E.C.

MR. JOHN JAMES' business at Wallington has been sold to Mr. D. B. Coldwell (late of Pimlico), through the agency of Messrs. Taylor & Co., of 38 Walbrook, London, E.C.

MR. ROBERT YOUNG has purchased the business of Mr. C. Read at Banwell, near Weston-super-Mare, through the agency of Messrs. Taylor & Co., of Walbrook Chambers, 38 Walbrook, London, E.C.

MR. GEORGE H. DUNNILL has disposed of his branch-business at Nether Edge, Sheffield, to Mr. John T. Griffin (of Louth), through the agency of Messrs. Taylor & Co., 38 Walbrook, London, E.C.

MR. CHAS. F. PASSMORE has disposed of his business at Bath Road, Cheltenham, to Messrs. J. P. & J. A. Thomas, through the agency of Messrs. Taylor & Co., of 38 Walbrook, London, E.C.

DR. FREDERICK B. POWER has accepted the chair as Professor of Chemistry in the University of Wisconsin, and resigned his position as Professor of Analytical Chemistry in the Philadelphia College of Pharmacy.

PROFESSOR ATTFIELD has been elected honorary member of the Pharmaceutical Society of New South Wales. A short time ago the Virginia State Pharmaceutical Society paid him the same honour.

MR. HENRY AYSOUGH THOMPSON, JUN., has been admitted to partnership with his father in the manufacture of pharmaceutical preparations in the business at Worship Street, Finsbury, and the firm is now styled "Henry Ayscough Thompson & Son."

THE business of "Willmott's," 103 Borough, S.E., has been purchased, through Messrs. Orridge & Co.'s agency, by Mr. Percival K. Fripp, late proprietor of the business of "Pollock & Fripp," 133 Fenchurch Street, E.C., and will be carried on under the style of Willmott & Fripp.

MISS ARABELLA KENEALY, second daughter of the late Dr. Kenealy, has been successful at the King and Queen's College of Physicians, coming out first in order of merit over the fifty candidates for the diploma, and of whom two were women.

PORTSMOUTH appears to appreciate the talents of her pharmacists. Lately Mr. J. J. Sapp, chemist, of Palmerston Road, has been elected to the Town Council for St. Simon's Ward, that gentleman making the sixth knight of the pestle on that Council. The other pharmacist representatives are:—Mr. W. J. Tuck, for All Saint's Ward; Mr. L. L. Hackmann, for St. Mary's Ward; Mr. T. T. Foster, for St. Barnabas' Ward; Mr. H. P. Foster, for St. John's Ward; and Mr. C. Moorshead, for St. Matthew's Ward.

THE will and two codicils of William Farr, C.B., M.D., F.R.S., D.C.L., formerly Superintendent of the Statistical Department of the Registrar-General's office, late of 78 Portsdown Road, Maida Vale, who died on April 14 last, have been proved by Lieutenant William Farr, R.N., the son, and Mr. Joseph Whittall, two of the executors, the value of the personal estate being over 3,600*l.* The testator bequeaths to his son William the diamond ring presented to him by the Emperor of Russia, and legacies to his executors. The residue of his property is to be divided between all his children in equal shares.

AT the Zoedone Works, Wrexham, last month, Mr. Richard Evans, on behalf of the employes and some of the trade connections, presented a handsome testimonial to Mr. John Moss, F.I.C., F.C.S., who had been the manager of the works for the past three years, and who had just removed to London. The testimonial consisted of a very handsome marble clock, sixteen days, strikes on gong, and has black dial with gold centre and figures, a pair of elegant antique

bronze vases on marble pedestals, a set of one dozen silver fish knives and forks in case, and an elegant card-tray artistically hand-painted and enamelled. Mr. Evans, in a cordial speech, expressed the good will of the staff and friends who had wished to make this present to remind Mr. Moss of his friends at Wrexham, and Mr. Moss, in acknowledging "this superb expression of their good will," said that his three years in Wrexham had been an extremely happy time.

Trade Notes.

At the Hygienic Exhibition at Berlin a gold medal was awarded to Messrs. Schimmel & Co. for their display of fine chemicals.

* *

MESSRS. KAY BROTHERS, of Stockport, have purchased the business of the late Mr. E. P. Hornby, which was founded by Olive Sims in 1786.

* *

MR. H. W. HERD, Chemist, Ambleside, has opened a new shop there, very handsomely fitted. All the fittings, show-cases, &c., have been supplied by Evans, Sons & Co., Liverpool.

* *

THE British Syphon Company, 2 Gresham Buildings, E.C., had a large display at the Amsterdam Exhibition, of which no notice appeared in our report. They inform us that they have received the highest award in their section.

* *

MR. J. GELDHART, of Liverpool, is offering through chemists a new galactagogue. It appeals to a peculiarly susceptible class of consumers, and is likely to have a large sale if properly pushed. It is a soft extract, and is put up in bottles at 2s. 9d., 4s. 6d., and 11s.

* *

THE Parcels Post is responsible for many things. One is a series of boxes brought out by Messrs. Evans, Sons & Co., Liverpool, under the name of "Savars' Parcels-post Boxes," which are made to fit 4-oz., 8-oz., and 16-oz. bottles. They are of cardboard, substantially made. We find that they will bear ill usage, for we placed the smallest size on the floor and failed to break it by stamping on it.

* *

DR. P. B. COLLIER, who is now representing Scott & Bowne in England, has sent us a sample-bottle of Scott's emulsion. The published formula shows that it contains 50 per cent. of cod-liver oil, with 6 grains of hypophosphite of lime and 3 grains of hypophosphite of soda in each fluid ounce. It is prepared with glycerine in place of sugar, and it is claimed that this prevents fermentative changes and the eruptions so often caused by the oil.

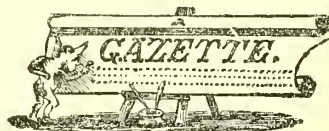
* *

WE have received from the Davidson Rubber Company a sample of their No. 1 syringe, with pure block-tin pipes. They claim that the materials and workmanship are such that the syringe will stand fair usage in any climate far longer than any other make. This is naturally a great consideration in our colonies and in thinly-populated districts, where it is not easy to get such instruments repaired. An ingenious modification of the suction end allows the tube to be hung up to drain after use.

* *

CATALOGUES.—We have received from Messrs. Evans, Sons & Co. their half-yearly price-current of druggists' sundries, patent medicines, &c. It is fully illustrated and indexed, and very distinctly printed.—Messrs. Burgoyne, Burdighes & Co. have sent us a price catalogue of pure chemicals and reagents, giving a full line of rare chemicals, and containing a price-list of the manufactures of C. A. F. Kahlbaum, of Berlin, for whom they are agents, who makes every description of alcoholic compounds and organic chemicals for scientific research.

COMPANIES REGISTERED.—*Queen Soap and Perfumery Company*.—On July 9 a company was registered, having for its object the acquisition of the business of Messrs. M. Bryan & Co., of York Street, Shoreditch, E., manufacturers of rock cocoa, packed coffee, &c., and soap and perfumery. The nominal capital is 10,000*l.*, divided into 1,000 shares of 10*l.* each. Appended are the subscribers to the articles of association:—Mr. J. L. Grundy, 85 Lancaster Road, Finsbury Park; Mr. J. D. Listman, Shirley Villas, South Norwood; Mr. A. T. Smith, 5 Myddleton Square, E.C.; Mr. C. E. Barker, 40 Dalbey Road, Brixton; Mr. J. W. Randall, Enfield; Mr. E. T. Lea, Walthamstow; and Mr. H. E. Willis, 20 Manchester Street, W.C. The directors are Messrs. J. A. Bayley, J. C. Bayley, R. Stanley, and J. L. Grundy, the share qualification being the holding of ten shares.—*Crown Mineral Waters Company*, with a capital of 25,000*l.* in 10*l.* shares; *Hendon Glass Company*, capital 25,000*l.* in 10*l.* shares; *Indelible Ink Company*, capital 2,000*l.* in 5*l.* shares; *Newcastle Chemical Works Company*, capital 300,000*l.* in 4*l.* and 1*l.* shares; *Temperance Beverage Company*, capital 10,000*l.* in 1*l.* shares.—*The Rhondda Chemical and Soap Company*.—On July 13 a company was registered under this title, for the purpose of acquiring certain leasehold interests in the Rhondda Chemical Works, the property of Mrs. E. Smith and Mr. C. H. Smith, situate at Tymawr, near Pontypridd, to carry on the same, and to manufacture soap and other substances of the same character. The company has a registered capital of 20,000*l.*, divided into 2,000 shares of 10*l.* each, and the subscribers are:—Mr. E. Thomas, Maindy Hall, Pontypridd, who takes 1 share; Mr. H. N. Davis, Cymn, Pontypridd, 1; Mr. G. Hopkins, Hayes, Cardiff, 1; Mr. S. Fletcher, St. Mary, Cardiff, 1; Mr. H. J. Wiltshire, Pontypridd, 1; Mr. F. G. Evans, Tynant House, Cardiff, 1; and Mr. J. Prothero, Taff Street, Pontypridd, 1 share. The holding of twenty shares is the qualification for the directorate, and the first officers are Messrs. F. G. Evans, E. Thomas, H. N. Davis, G. Hopkins, J. Wiltshire, and S. Fletcher.



LIQUIDATIONS.

- DAVENPORT, GEORGE ALDERSEY, now Chapel Ash, and 8 High Street, Wolverhampton, chemist and druggist and fancy and general dealer. August 4.
- MILLAR, FREDERICK CHARLES MOSS, Woodland Leigh, Braddon's Hill Road East, Torquay, chemist. July 5.
- MILNER, GEORGE, Vincent Street, Old Street, London, and Denmark Street, High Wycombe, varnish and polish manufacturer and dyersalter. June 28.
- SCHOFIELD, WILLIAM, 29 Bucklersbury, and 37 Walbrook, manufacturer of insect exterminating fluid, in copartnership, trading as "Schofield & Co.," Stewart's Road and Stewart's Lane, Battersea, &c., fancy stone and marble merchants. August 7.
- SMITH, CHRISTOPHER WEBB, Catherine Street, Aston, manufacturing chemist, under firm of "Cooper & Smith and Cooper, Smith & Company." July 5.
- SMYTH, THOMAS, 178 Islington, Liverpool, chemist and druggist. July 9.
- WHITWELL, FRANCIS WILLIAM, Thurst, chemist and druggist and wine and spirit merchant. August 4.
- WILLIAMS, THOMAS, 3 York Buildings, Dale Street, Liverpool, consulting chemist and assayer. July 10.

PARTNERSHIPS DISSOLVED.

- ARBEY & Co., Nottingham, potash manufacturers. July 12. (Joseph Abbey and George Henry Turner.)
- BATES & HITCHON, Kidderminster, mineral water manufacturers and manufacturers of ale finings. July 9. (Isaiah Bates and Frederick Hitchon.) Debts by Hitchon.
- COLEMAN, W. P. & Co., Whitstable, mineral and bottled water manufacturers. July 30. (William Pearson Coleman and Stephen Saffery.)
- KILLEGREY, RICHARDSON & Co., Doncaster, artificial manure dealers, steep dippers, and agents for Little's chemical fluid. (John Killengrey, William Richardson, and James Hastie) as regards Richardson. May 31. Debts by Killengrey and Hastie.

SPOUNCER & SONS, Gainsborough, chemists, druggists, linseed cake, guano, and artificial manure merchants. June 30. (Thomas Spouncer, Henry Thomas Spouncer, and William Robert Spouncer.) Debts by T. Spouncer, at Hayes & Son, solicitors, Market Place, Gainsborough.

SCOTCH SEQUESTRATION.

HOPE, WILLIAM PLENDERLEITH (otherwise William Hope), HOPE, JOHN WILSON, HOPE, BENJAMIN WILSON, and HOPE, JAMES ARCHIBALD PLENDERLEITH, Leith, chemical manufacturers and merchants, of firm of William Hope & Sons. August 14. 12 Dowell's Rooms, 18 George Street, Edinburgh. Claims by December 7.



The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, patent agent, 4 South Street, Finsbury, London, and at Paris and Brussels.

Applications for Letters Patent:—

Alcohols.—No. 3690.—H. A. Bonneville.—A communication from A. Ralu, jun., of Ermont, France, manufacturer. Improvements in the manufacture of alcohols. Dated July 28, 1883.

Alumina.—No. 3388.—T. L. G. Bell, of Abbey Mills, Stratford, London, chemist. Improvements in the manufacture of compounds of alumina. Dated July 9, 1883.

Applying Electricity.—No. 3423.—J. N. Aronson, of Old Broad Street, London. Improvements in apparatus for applying electricity for curative and other purposes. Dated July 11, 1883.

Arsenate of Soda.—No. 3291.—F. C. Blythe, of Acreington, manufacturing chemist. Improvements in the manufacture of arseniate of soda. Dated July 3, 1883.

Artificial Fertilisers.—No. 3343.—T. W. B. Mumford, of Victoria Dock, London. Improvements in the manufacture of artificial fertilisers. Dated July 5, 1883.

Bleaching Ozokerit, &c.—No. 3435.—J. Imray.—A communication from J. C. O. Chemin, of Paris. Improvements in processes for bleaching ozokerit and other solid hydrocarbons, and for rendering them available as substitutes for wax. Dated July 12, 1883.

Boiler.—No. 3287.—G. Knowles, of Billiter House, Billiter Street, London. An improved boiler or digester for effecting chemical or other operations. Dated July 3, 1883.

Bottles.—No. 3453.—J. H. Lindsey, of Chancery Lane, London. Improvements in bottles for producing a new kind of beverage, applicable also to other purposes. Dated July 13, 1883.

Box.—No. 3594.—R. B. Jackson, of Great Tower Street, London. An improved box or case for parcels post and like purposes. Dated July 21, 1883.

Colouring Matters.—No. 3491.—H. J. Haddan.—A communication from Lembach & Schlicher, of Biebrich-on-the-Rhine, Germany. A new or improved process for the manufacture of blue colouring matters, suitable for dyeing and printing. Dated July 16, 1883.

Colouring Matters.—No. 3498.—F. Wirth.—A communication from H. Baum, chemist, of Höchst-on-the-Main, Germany. Improvements in colouring matters. Dated July 16, 1883.

Colouring Matters.—No. 3523.—F. Wirth.—A communication from H. Baum, chemist, of Höchst-on-the-Main, Germany. Improvements in colouring matters. Dated July 17, 1883.

Colouring Matters.—No. 3527.—F. Wirth.—A communication from H. Baum, chemist, of Höchst-on-the-Main, Germany. Improvements in colouring matters. Dated July 17, 1883.

Colouring Matters.—No. 3730.—R. Holliday, of Huddersfield, manufacturing chemist, and W. R. Hodgkinson, of Pembroke Square, Kensington, London, professor of chemistry. Improvements in the production of certain substances for use in obtaining colouring matters suitable for dyeing and printing. Dated July 31, 1883.

Cork-cutter.—No. 3323.—J. Hix, of Station Road, Battersea, London. An improved machine or apparatus for cutting corks, either conical or cylindrical. Dated July 4, 1883.

Defecating Saccharine Liquors.—No. 3397.—H. H. Lake.—A communication from H. A. Hughes, of Camden, New Jersey, United States. Improved processes for defecating or clarifying liquors, which invention also comprises a compound for use in such processes. Dated July 9, 1883.

Effervescing Drink.—No. 3307.—A. Baumgarten, of Hartham Road, Holloway, London, chemist. An improved effervescing drink. Dated July 4, 1883.

Food.—No. 3769.—N. E. Davies, of Sherborne, Dorsetshire, physician and surgeon. The preparation of a food for infants. Dated August 1, 1883.

Eliminating Nitrogenous Matters.—No. 3536.—E. R. Moritz, Doctor of Philosophy, of Chancery Lane, London, and H. C. Lee, of Park Crescent, Portland Place, London. A new process for the elimination of nitrogenous matters from fermentable or fermented substances. Dated July 18, 1883.

Extracting Ferrocyanides.—No. 3342.—Dr. H. Kunheim, of Berlin, and H. Zimmermann, manufacturer, of Wesseling, near Cologne. An improved method of or process for, extracting ferrocyanides from substances containing the same. Dated July 5, 1883.

Extracting Sulphur Compounds.—No. 3624.—J. Simpson, of Liverpool, manufacturing chemist. Improvements in the extraction of sulphur compounds from alkali waste. Dated July 24, 1883.

Gaseous Hydrochloric Acid.—No. 3393.—C. D. Atel.—A communication from R. Haseculer, director of the Chemical Works, "Rhenania," of Aix-la-Chapelle, Prussia. An improved manufacture of gaseous hydrochloric acid. Dated July 9, 1883.

Golden Sulphuret of Antimony.—No. 3777.—A. G. Brookes.—A communication from T. Sanders, of Haverhill, Massachusetts, United States. Improvements in the method of producing golden sulphuret of antimony or pentasulphide of antimony. Dated August 2, 1883.

Ink.—No. 3600.—C. E. Bolton, of Park Row, Leeds. Improvements in the manufacture of ink. Dated July 23, 1883.

Maltose.—No. 3437.—J. Imray.—A communication from L. Cuisinier, of Paris. Improvements in the manufacture of maltose and its applications. Dated July 12, 1883.

Purifying China Clay, &c.—No. 3317.—A. S. Chinwoek, of St. Austell, Cornwall, and Upper Thames Street, London. Improvements in apparatus for the separation of impurities from china clay, amber, ochre, and like matters. Dated July 4, 1883.

Removing Stones from the Bladder.—No. 3668.—W. P. Thompson.—A communication from Dr. N. Vergueiro, of Sao Paulo, Brazil. Improvements in or relating to apparatus for removing stones from the bladder. Dated July 26, 1883.

Soap.—No. 3454.—B. Seemann, of Bromley. Improvements in the manufacture of soap. Dated July 13, 1883.

Soap.—No. 3485.—G. H. Ellis, of Finsbury Pavement, London. Improvements in soap tablets. Dated July 16, 1883.

Soap.—No. 3658.—J. Imray.—A communication from J. A. F. Bang and J. de Castro, both of Paris. An improvement in the treatment of fats for the manufacture of soap. Dated July 23, 1883.

Stopping Bottles, &c.—No. 3285.—A. Kempson, of Tunbridge Wells wine merchant. Improvements in stoppering bottles, jars, and like vessels. Dated July 3, 1883.

Stopping Bottles, &c.—No. 3429.—J. Seeats, of King's Road, Norbiton, Surrey. Improvements in stoppering or closing bottles, jars, and other vessels. Dated July 12, 1883.

Stopping Bottles, &c.—No. 3511.—J. A. Bowles, of Devereux Court, Strand, London. Improvements in closing or stoppering bottles and other vessels. Dated July 17, 1883.

Stopping Bottles.—No. 3554.—M. F. Roberts, of Holloway, London. Improvements in bottle-stoppers. Dated July 19, 1883.

Stopping Bottles.—No. 3570.—B. D. Marks, of Louisville, Kentucky, United States. Bottle-stopper fastenings. Dated July 20, 1883.

Stopping Bottles.—No. 3693.—M. Gill, of Huddersfield. Improvements in bottle-stoppers. Dated July 28, 1883.

Stopping Bottles, &c.—No. 3774.—W. Samson, of Dundee. An improved automatic stopper for bottles or other vessels containing aerated waters or liquids. Dated August 1, 1883.

Sulpho Acids.—No. 3606.—F. Wirth.—A communication from the Farbfabrik vormals "Brönner," of Frankfurt-on-the-Main. Improvements in the manufacture of certain sulpho acids. Dated July 23, 1883.

Treating Phosphates.—No. 3627.—H. J. Haddan.—A communication from A. H. Koetoe and T. B. Stillman, both of New York. Improvements in treating phosphates. Dated July 24, 1883.

Treating Soap Liquors, &c.—No. 3720.—A. Crossley, of Adwalton, near Bradford, Yorkshire, chemical manufacturer. Improvements in the treatment of soap liquors or suds or other liquids after use in the washing of raw silk preparatory to its manufacture or dyeing, and in the recovery of useful products therefrom. Dated July 30, 1883.

Treating Spent Lime.—No. 3657.—W. R. Lake.—A communication from A. T. Schuessler, of Newark, New Jersey, and V. Zeis and M. D. Hanover, both of New York, all in the United States. An improved process for treating the spent lime from gasworks, to regenerate the same, and to obtain a product for use in the manufacture of cyanides. Dated July 25, 1883.

Specifications published during the month :—

Postage 1d. each extra.

1878.

4158. * E. W. Parnell and J. Simpson, manufacture of alkalis. (Disclaimer and memorandum of alteration). 4d.

1882.

2338. H. E. Jones. Manufacture of animal charcoal. 6d.

2339. J. W. Ingham. Manufacture of animal charcoal, &c. 6d.

5403. G. H. Bolton and J. R. Wylde. Separating liquids from waste products of chemical works. 6d.

5412. E. Carey and F. Hurier. Manufacture of bisulphite of soda. 6d.

5442. J. Maynes. Extraction and separation of salt, &c., from fluids. 6d.

5450. W. P. Thompson. Apparatus for filtering. (Not proceeded with.) 2d.

5464. J. Longmore. Utilisation of residues obtained in the refining of cotton-seed oil, &c. 4d.

5466. W. P. Thompson. Making soap, and separating the component parts of fats and oils, and obtaining from them glycerine, stearine, and oleine. 6d.

5471. J. C. Mewburn. Bleaching, mordanting, and dyeing cotton. (Not proceeded with.) 2d.

5481. A. M. Clark. Manufacture of potash and soda. (Not proceeded with.) 2d.

5509. L. A. Groth. Process for the production of magnesium, aluminium, &c. 2d.

5513. W. F. Colge. Process of dyeing cotton-wool, &c. (Not proceeded with.) 2d.

5522. P. Yates. Taps for application to bottles containing aërated liquids. (Not proceeded with.) 2d.

5523. C. D. Ahl. Treatment of solutions of metallic salts for the removal of iron impurities therefrom. (Not proceeded with.) 2d.

5545. J. Mactear. Utilising bye-products of the soda and potash manufactures. 4d.

5554. C. Lowe. Manufacturing colouring matters from coal-tar products. 4d.

5565. F. S. Barff and A. P. Wile. Preparation of extracts of meat. 4d.

5572. C. T. Kingzett and M. Ziegler. Antiseptics, disinfectants, and deodorants. 4d.

5604. S. Mellor. Manufacture of benzol, nitro-benzol, nitro-toluol, and their homologues. 4d.

5607. W. Weldon. Treating mixed solutions of chloride of copper and sulphate of soda. 6d.

5618. N. Lubbock. Process of fermenting liquids. 4d.

5619. J. Phillips. Apparatus for filling and closing bottles. 10d.

5632. E. Edwards. Surgical truss. (Not proceeded with.) 2d.

5651. P. F. Vandersteenaarten. Composition to be used as a remedy for whooping cough. 2d.

5692. J. Levinstein. Manufacture of colouring matters. 2d.

5696. J. Imray. Manufacture of colouring matters. 2d.

5717. G. E. Davis. Distillation of coal, &c. 4d.

5746. H. Kenyon. Processes and apparatus for obtaining useful products in the treatment of galvanisers' flux, &c. (Not proceeded with.) 2d.

5788. L. A. Groth. Process for preparing fluid glue from fish, &c. 2d.

5787. L. A. Groth. Process for extracting and preserving the oil from fish, whale, &c. 4d.

5788. L. A. Groth. Process for preparing extract from fish, whale, &c., for food, &c. 4d.

5791. P. P. Deslandes. Stoppers for bottles. 6d.

5809. J. Hargreaves and T. Robinson. Treating hydrochloric acid, &c. 6d.

5822. J. T. Creasy. Manufacture of bottles, &c. 6d.

5869. J. Armstrong. Manufacture of beer or other beverages, &c. 4d.

5913. F. Wirth. Production of magnesia salts from sulpho-acids. 4d.

5927. F. C. Glaser. Manufacture of bichromate of potash. 4d.

5989. C. D. Abel. Manufacture of bichromate of soda. 4d.

6047. J. H. Johnson. Manufacture of bichromates. 4d.

1883.

1355. C. A. Allais. Soluble compound of coffee and sugar. 2d.

1608. R. H. Brandon. Gelatino-bromide film-paper for photographic negatives. 2d.

Exchange Column.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C." the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Deposit of Money.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We shall acknowledge receipt to both parties by post-cards, and shall only pay it away on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of 3l. or less, or 1s. if above that amount.

ADVERTISERS IN THE EXCHANGE COLUMN will find it very much to their advantage to draw up their announcements so that they will fall naturally into one of the divisions into which the advertisements are grouped.

We would also suggest that those who avail themselves of the Disposal section will be wise to define, with some approach to detail, what they have to sell. Probable purchasers are too many, in most cases, to enter into preliminary correspondence, which is likely enough to have no ultimate result.

Dental and Surgical.

Lot of trusses, in good order but slightly soiled; offers wanted. Huband, Tamworth.

A dentist's lathe, with sliderest for turning, two wheel brushes, wheel crank, and treadle complete, 35s.; worth double. S. Parker, 360 Leeds Road, Bradford.

Walker's two-flask self-regulating vulcaniser, in perfect working order, and two flasks, price 5s. 6d., including packing-case. J. Potts, Deutist, Tatham Street, Sunderland.

Drugs and Chemicals.

20 lbs. essence ginger ale, Newham, Sheffield, cost 3s. 6d. lb. for 2s. 6d., or offers. Street, Chemist, Burton-on-Trent.

Finest essence lemon, 7 lbs.; 6 bottles H. es. oil mint, 12s. 9d. per lb.; Bismark brown, 2s. 6d. per lb.; 2 tins castor oil, 4 1/2 d. per lb.; 1 tin pure glycerine, 1.260, at 10 1/2 d. per lb.; pulv. aloes Barb. opt. 2s. per lb.; aloes Barb. opt. 1s. 6d. per lb.; pulv. rhel. opt. E.L., 3s. per lb.; St. Vincent arrowroot, 7 1/2 d. per lb.; small parcel orange shellae, 10d. per lb.; gum, Turkey sorts, 7d. per lb.; croci. stig. Valencia, 3s. 4d. oz.; ditto placet, 2s. 7d. per oz.; Bior. anthem. exot. opt., 10d. per lb.; gum Benjamin, 2s. per lb.; or saleable patents and 2 gall. stock shop-rounds taken in exchange for value. S. B. Hicks, Chemist, 5 Shaftesbury Terrace, Horsey Rise, London, N.

Fifty oz. acid benzoic, 6d.; 1 lb. acid salicylic, 6s. 6d.; 1 gal. acid fluorid, 12s.; 1 lb. acid gallic, 4s.; 14 lbs. acid phosph. dil., 5d.; 1 lb. each ext. aloes aquos, 4s.; belladonna, 6s.; gentian, 1s. 4d.; nux vom., 16s.; cannabis, 16s.; hæmatox, 2s. 6d.; opii liq., 2s. 10d.; 5 lbs. fol. hyos. lamin., 6s.; buchu ditto, 1s. 6d.; 14 lbs. gum tragac. pulv., 2s. 6d.; 1 cwt. gum myrrh, 1s.; 14 lbs. pot. bitart., 1s. 3d.; 7 lbs. pot. iodid., 5s. 9d.; 28 lbs. Parrish's food, 8d.; 5 lbs. Dover's powder, 4s.; 1 lb. Easton's syrup, 2s. 6d.; 20 lbs. sal. volatile, 2s.; 2 lbs. Tonquin beans, 6s.; 5 lbs. pot. aect., 1s.; 28 lbs. pot. pruss., 10d.; 28 lbs. emp. resinas, 7d.; 10 lbs. Kamala, 1s. 6d.; 7 lbs. tinct. hyoscy., 2s. 9d.; 2 lbs. pulv. cinchon., 3s. 6d.; 8 lbs. pulv. rhel., 1s.; 4 oz. cinchouidine, 2s. 6d.; 4 oz. ol. cubebæ, 1s.; 4 oz. croton chloral., 2s.; six cases Apollinaris, 18s. Day & Co., Herne Hill.

20 oz. morph. hydrochlor., 6s. per oz. 5 1/2/36.

2 cwt. dried peppermint. Keudali, Blyth.

"Devonensis's" famous recipe for lavender water, ditto for eau de Cologne, both post-free for thirty stamps. 5/27.

A quantity of 1878 hops, in good condition; Cochon, ginger opt., scuna, sacc. ustum, gentian root, canomiles, ess. lemon opt., beeswax, cod liver oil, oil rose geranium; to be sold cheap if offers wanted, or will exchange for Hotchkiss' oil mint. R. Sowerby, Middlesborough.

Proprietary Articles.

A quantity of 1s. 1 1/2 d. patents at 8s. 2s. 9d., at 21s.; write for list. 5/11.

Case Euseulap, except one bottle, offers, cash, patents. Corke, Ticehurst.

What offers for six dozen zoedone pints and nine dozen Vin Sauté. W., 74 Market Place, Sheffield.

About 40 lbs. Bush's Frenet cream, 1s. 6d. per lb.; in small lots, warrant genuine. W. J. Grimditch, Chemist, Ely, Cambs.

One gross Bradbury's 1s. sheep-dipping powder, 72s. gross; also 1/2 gross Bradbury's 1s. 3d. fly powder, 9s. 6d. gross. Apply, George Drummond, Chemist, Coupar-Angus.

3 doz. 1s. Liebig's cocoa, 2 doz. 2s. ditto, 3 d. z. 1s. 6d. Everett's blacking, 2 1/2 doz. 1s. tins Lloyd's foot, 1 doz. 1s. 6d. Condy's ozonised sea salt, 1 doz. 1s. McDougall's fluid, 1 doz. 13 1/2 d. McDougall's carbolate, 1 doz. 1s. Little's soluble phenyle, 1 doz. 6d. ditto; all for half retail price, good condition. G. W. Worfolk, Ilkley.

Three carboys, 34 inches high, and mahogany stands, 20s. each; twenty Robare's avro-line, 2l.; six Eggo's sheep and lamb dipping composition, 5 lb. size, 9s.; six Eggo's sheep and lamb dipping composition, 10 lb. size, 15s.; ten Eggo's toothache cure, 6s.; twelve Steadman's preparations, 7s.; one Lewis's elixir d'Italia, 6s. 6d.; three Wearing's Hyperion balm, 1s. 9d. 58/7.

71 packets Bradbury's dipping powder, good condition, what offers? Munday, Chemist, Cardiff.

Optical.

Herbert & Godfrey's (Druff & Druff's) spectacles, half invoice price. Kendall, Chemist, Blyth.

I have a few dozen spectacles to sell cheap. Apply, Rowland, Chemist, 91 Bridge Street, Manchester.

Spectacles.—Sixty-eight pairs retailing from 6s. 6d. to 1s. per pair, including folders, tinted, periscope, &c., cost 6l.; no reasonable offer refused. Thorp, Chemist, Northampton.

Apparatus.

A 10-gallon portable still complete, with worm and tub, cheap. 57/29.

Seven tinned iron cisterns, each holding about 150 gallons, and each 59 inches high and 32 inches diameter, with movable covers, and two brass taps, 50s. each, cost double. Leonard & Co., Nelson Street, Bristol.

Maignan's filtre rapide, Bijou A, cost 15s.; rotary window exhibitor, cost 45s.; Maben's hot-air chamber, see *Pharmaceutical Journal*, March 31; what offers? Wilson & Son, Chemists, Harrogate.

Maw's 5-grain pill machine, new, 15s.; D'O's hattery, complete, 25s.; lozenge machine, three sets brass rollers, nearly new, 40s.; Barnett's soda-water plant, complete, with lead generator, bottling machine, gasometer, &c., 15l.; great bargains. Address, Danmore, Chemist, Downton.

Educational.

Southall's Materia Medica Cabinet, cost 30s., perfect, offers. Phillips, 34 Queen Square, Wolverhampton.

Set of illegible autograph prescriptions (original), 2s. 6d., as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2s.; 50 questions asked of successful students at last Minor, 1s. 1d.; lot of cheap, almost new, books. Stamp for list, Saunders, 130 Camden Road, N.W.

Free 3s. 6d., Judd's Preliminary works—"Thema," "Cesar Mule Easy," "Arithmetical Tests," "Short Cut to Preliminary," &c., cost 11s.; free 3l. 6d., Judd's Minor works—"Botany," "Materia Medica," "Analysis," "Physics," "Atomic Weights," "Minor Questions," "Ointments," cost 8s.; a set of indigenous Minor botanical specimens, dried and named, this year's growth, about thirty, as required in examination, 7s. 6d. A. P. S., 5 Wilton Square, Islington.

Literature.

90 volumes various subjects, list sent, any useful exchange. R. Mason, Bromsgrove.

The Chemist and Druggist, first eleven years, complete and clean; what offers? 15/15.

British Homoeopathic Pharmacopoeia, second edition, 6s., published 10s., nearly new. Marson, Chemist, Stafford.

thirteen vols. *Pharmaceutical Journal*, June, 1841 to 1842, half-bound, 1877 unbound; 1876 and 1882 *Chemist and Druggist*, unbound; what offers? 52/30.

Botanical Microscope, new, 7s. 6d.; Buchanan's "Medicine," only 5s.; 2s. 6d. Key to "Cesar," 1s. 9d.; 9s. Freesealus' "Qualitative Analysis," 6s. 56/38.

Will's "Materia Medica," 6s. 6d., "Pharmacy," 2s. "Handbook of Analysis," 1s. "Physics," 1s. Dictionary of Botanical Terms, nearly new, the 1st for 9s. S. J. Elliott, 2 Market Place, Preston.

Soda-water Plant.

Second-hand soda-water plant to be sold, a bargain. A. E. Bating, Market Square, Great Marlow, Bucks.

Second-hand soda-water plant—several in stock. Address, Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.

Complete soda-water plant, in thorough working order, 150 or more 2-dozen boxes, with patent bottles; the whole cost 100l. last year, will take 60l. or fair offer. 59/27.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 23r Forston Street, Shepherdess Walk, London, N.

Shop Fittings.

Carboys.—Two 8-gallon for windows; offer wanted. Crocker, East Dulwich.

Lamp and bracket, as Maw's fig. 9. Perks, 1 Sloane Square, London.

Two 10-gallon show-globes, cut stoppers, mahogany stands; twelve 1-gallon upright black store bottles, w. m. japanned caps; offers. Street, Chemist, Burton-on-Trent.

Handsome glass tablet, gilt and colours, mahogany frame, lettered "Dispensing Department," 3 ft. 2 in. high 4 ft. 10 in. long. Roysse, Portwood, Stockport.

The entire stock, valued upwards of 1,000l. of a wholesale druggist is for disposal at a great reduction; lists on application. Lloyd Rayner, 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

Pair handsome massive brass standards, to carry two carboys or specie jars each, ornamental centre pillar, 57 inches high, extending arms each side 22 inches, height to carboy stand 42 inches, fitted with swing gas-bracket. Northern, 390 Strand, London.

First-class second-hand dispensing-counter, deal-panelled counter-front and mahogany top, and mahogany screens with handsome plate-glass tablets, gold writing, 7 ft. 5 in. long by 4 ft. 11 in. high, 5l. 10s.; two 6-foot nests, two 4-foot, two 2-foot mahogany-fronted drawers. To be sold cheap. 22 Gun Street, Brushfield Street, Bishops-gate.

An 11-ft. mahogany wall-case, 4 ft. 6 in. high; a 5 ft. 6 in. ditto, ditto, made on the airtight principle, 6 ft. 6 in. high; a ditto, ditto, 6 ft. 6 in. long, 6 ft. 6 in. high; 5 feet high by 6 ft. high; ditto, ditto 5 ft. by 3 ft. 8 in. high; 3 ft. 10 in. long by 4 ft. high; 10 ft. long, 2 ft. 3 in. high; 11 ft. by 6 ft. high; a 17-ft. run mahogany wall-case, with mahogany cupboards under; 7 ft. 6 in. long by 2 ft. 3 in. high; 4 ft. long, 3 ft. high; also a number of small upright cases, from 20 in. long, 2 ft. long, 3 ft. long, &c. E. Natali, 207 Old Street, E.C.

20-ft., 18-ft., 14-ft., 8-ft., 7-ft., 6-ft., 5-ft. mahogany-top counters, fitted with drawers; 12-ft. mahogany-fronted counter; 6-ft. mahogany-fronted counter; two 10-ft. side-counters, fitted with drawers and cupboards, suitable for store-room; 13-ft. 6 mahogany and plate-glass frosted counter; 7-ft. do. do.; 7-ft. 6 in. long, 3-ft. 6 in. high, mahogany and glass cupboard; a 6-ft. long, 3-ft. wide side-counter, fitted with drawers; a quantity of shelving, cupboard-doors, &c., suitable for fitting store-rooms, a bargain. E. Natali, 207 Old Street, near Pitfield Street, London, E.C.

The entire fixtures of several handsome chemists' shops for disposal, elaborately fitted; some of these have cost between 500l. and 600l.; price 27l., 35l. 15s., 42l., 56l., 75l., 120l., 150l., 200l. Lloyd Rayner, 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

Second-hand stock.—Mahogany counter-case, circular plate-glass trays, with upright case, plate-glass shelf, refractors, as Maw's A 4, 42 in. long, 25 in. wide, 23 in. high, no carving, 6l.; nest 49 mahogany-fronted drug-drawers, deal lockers, and overboard, 94 in. long, 48½ in. high, 3l. 15s.; Spanish mahogany dispensing screen, three-pilasters and trusses, plate-glass sashes and tablets, own make, 107 in. long, 23½ in. high, 7l. 10s.; mahogany external doors, plate-glass shutters and fanlight, 8½ in. high, 48 in. wide, 3l.; mahogany shop-front sash for four squares, 139 in. long, 111½ in. high, 30s.; 21 1-gallon ditto, 10s. 6d.; 26 3-pint rounds, 26s.; 6 quart syrups, 6s. W. Hawke & Son, Wild Court, Great Wild Street, London.

Dispensing screens, 5 ft., 6 ft., 7 ft., glass case at each side, with silvered glass centre, with marble slab in front, silvered plate-glass centre, with carved wood on top, 3 ft. high, the cases at each side plate-glass doors, with tablets on top, inside case fitted with silvered glass and shifting shelves, 7l. 10s.; as fig. A 53, 5 ft. 6 in. long, 8 ft. long, 7 ft. 6 in. long; as fig. A 54, 4 ft. long; as fig. A 55, 5 ft. long, 6 ft. long, 7 ft. 6 in. long; sponge-cases, A 41, 65s.; A 43, 5l.; a centre-case, 8 ft. long, 5 ft. wide, mahogany, 10l., worth double; a number of other size screens and cases, very cheap. E. Natali, 207 Old Street, near Pitfield Street, London, E.C.

Special great clearance sale to make room for alterations. 3 ft. long, 3 ft. 6 long, 4 ft. long, 4 ft. 6 long, 5 ft. long, 6 ft. long, 7 ft. long mahogany dispensing-case screens, as figs. A 54, 55, 56 Maw's; 7 ft. 9 long handsome plate-glass mirror-fronted dispensing-screen, similar to Maw's A 53; 5 ft. long, 6 ft. long, 7 ft. long handsome dispensing-screens, with a plate-glass case at each end, mirror centre, &c.; three 3 ft. 2 long, two 3 ft. 7 long, one 4 ft. 2 long, three 5 ft. long, three 6 ft. long, one 7 ft. 2 long, one 10 ft. long, one 12 ft. long, one 13 ft. long nests mahogany-fronted, gold-labelled shop-drawers; 5 and 6 ft. long nest deal-stained ditto; ten nests counter-drawers, with labelled drawers, &c., all sizes; 18 in. long, 2 ft. long, 2 ft. 1 long, 2 ft. 4 long, 2 ft. 6 long, 3 ft. long, 4 ft. long, 4 ft. 2 long, 6 ft. long, 8 ft. 3 long handsome counter-cases, as A 1, 3, 4, 5, 8, 15 Maw's list; tooth-brush cases as A 9, 10 Maw's; sponge-cases, as A 41, 42, 43; show-stands, as A 38, 40; soda-water stands, as A 38, 40; soda-water stand, A 57; 30 mahogany-top counters, all lengths, as A 60, 62, 63, Maw's; shop-fittings, complete, all lengths, A 82, 84, Maw's; handsome wall-cases, 2 ft. 6 long, 3 ft. 4 long, 4 ft. 3 long, 8 ft. 6 long, 8 ft. long, 10 ft. long, 12 ft. 6 long; handsome wall-cases, complete, 8½ ft. to 9 ft. high, 8 ft. long, 10 ft. long, 13 ft. 3 long, 14 ft. 6 long, 20 ft. long, similar to Maw's A 87, 88; 8 upright counter-cases, with and without desks, A 31, 32; cigar-cases, A 31, 35; quantity shop-chairs, stools, steps; quantity shop-lamps, all designs; quantity scales, store-canisters, oil-cisterns, tincture presses; cork presses large mortar-mixing mill; pill machines; composition, iron, marble mortars and pestles; composition funnels; quantity window-carboys, show and specie-jars, lozenge and jubbe jars, shop-bottles, stock-bottles, ointment and extract jars, &c. Lloyd Rayner, 10A and 46 De Beauvoir Crescent, Kingsland, London, N.

"Dirty Boy," full size, clean and perfect; cash or leading patents; offers wanted. Holmes, Chemist, Dublin.

Plate-glass counter-cases, as fig. A 2, 3 ft. long, 4 ft. long, 4 ft. 6 in. long; as fig. A 3, 3 ft. long, 40s.; 3 ft. 6 in. long, 45s.; as fig. A 6, 4 ft. long, 5 ft. long, 6 ft. long; as fig. A 7, 3 ft. 6 in. long, 6 ft. long; as fig. A 8, 5 ft. long, 6 ft. long; as fig. A 13, 4 ft. long, 4 ft. 6 in. long; fig. A 15, 6 ft. 6 in., 7 ft., 8 ft., and 9 ft. long; A 16, 3 ft., 3 ft. 6 in., 4 ft. long; A 17, 4 ft. and 4 ft. 6 in. long; A 18, 5 ft., 6 ft., 7 ft., 7 ft. 6 in., 8 ft., 9 ft., 10 ft.; toothbrush-cases, A 9, 35s.; A 10, revolving front, 50s.; desk and cases, fig. A 30, 2 ft. 6 in. long and 3 ft. long; A 31, 65s.; cigar-cases, A 34; bottles, jars, specijars, carboys, &c., bargains. E. Nafali, 207 Old Street, near Pitfield Street, London, E.C.

Fifty dozen shop rounds, 7s. dozen; blue and white ointment jars and pots, specijars, jubilee jars, and other fancy jars; a 3 and 5 grain pill-machine, reversible, 25s.; several 24=3, 4, and 5 grain pill-machines, equal to new, 16s. each; a Pindar's hand-rotary pill-machine, a piping-press for same, and pill-coater, all in first-rate condition, 7/; several out-of-the-globe-lens, glazed ruby-glass and lenses; spon-eases, A 41, 60s.; A 42, 5/; a 12 ft. fixture, as Maw's fig. A 84; 2 ft. long, 4 ft. long, 6 ft. long, 8 ft. long, 10 ft. long, 12 ft. long mahogany-fronted drawers, glass-knobs and glass-labels (bevelled edge), with lockers for bottles under; 4 ft. high, s. per lot run, inclusive of mahogany top to drawers. E. Nafali, 207 Old Street, near Pitfield Street, London.

Formulæ.

Receipt for soothing syrup, equal to Winslow's; got from one who used to mix it. 55/39.

Novargent, for resilvering plated goods; cost about 1s. per lb.; a little fortune to any energetic man; formula, 13 stamps. "Devoniensis," Broadthempston, Totnes.

Copy chemist's recipe book, result of many years' experience, prescribing and veterinary forms especially valuable; owing to large number sold price is reduced to 7s. 6d.; stamp for list and particulars. A. Johnson, Mr. Kilby, 121 Pyehank, Sheffield.

Fragrant foaming dentifrice (like "Floriline"); marking ink, *sine* silver (aniline), writing executed defies chemicals; effervescent fruit saline (resembles Eno's); magic neuralgic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-juice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or galls); cherry tooth paste (never ferments, like Gosnell's); brilliantine (inseparable, like Rimmel's); pill-coating (pearly white, no mucilage or mastic used); glycerino jelly (perfectly transparent); crimson marking-ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); plate-powder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hay's); corn solvent, clear (not acid); liquor copaihe comp. c. buchu et matico (mixes clear with water); gonorrhoea paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5s. each (five for 14/). Readers are cautioned against cheap and worthless imitations. I was first to advertise formulæ in this journal. "Analyst," care of Mr. Warnes, 130 Camden Road, N.W.

Four ounce-bottles Macfarlane's morphia mur., 6s. each; five 4-oz. Howard's quinine, 30s. each. 58/2.

Gonorrhoea in all its stages and complications, successful treatment, 2s. 6d.; also, primary, secondary, and tertiary syphilis, 2s. 6d.; menthol cones, relieve toothache, tic, neuralgia, and sciatica instantly; Parrish's chemical food, syrup hypophosphites (equal to Fellow's), 1s. 6d. each. Address, "Surgeon," Hebburn-on-Tyne.

Formulæ for the following preparations, at present in successful use, and therefore recommended with confidence—the confidence of experience. "Foaming Liquid Dentifrice," strong and the flavour unique; quinine and iron tonic, pleasant, harmless to the teeth, and keeps unchanged; transparent glycerine jelly, equal to Wheeler's, cheap, and without gelatine, isinglass, starch, or soap; "Hair Restorer," a desirable specialty, being cheap, quick, and harmless; has "paid the rent" where now used; "Grape Juice Saline," preferred to Eno's 2s. 9d. size, costs 8d.; "Marking Ink," very successful, equal to Bond's, and will not burn the fabric; "Perfect Writing Ink," without galls or iron, undistinguishable from Draper's, and costs 2½d. per gallon; post free, 9d. each, 3 for 2s., 6 for 3s. 6d. W. Stewart, 39 French Street, Southampton.

Reliable receipts—all in actual commerce:—"Corn and Wart Eradicator" (similar to Hargreave's), never fails, painless, cleanly, may be sold with confidence, always gives satisfaction; "Whooping-cough Syrup and Embrocation," certain cure, rapid action, no dangerous ingredients; "Blood Cleanser," superior to any advertised preparation, without the danger attending many; "Physician's Prescription for Spermatorrhoea," and kindred diseases, hundreds of cases have been cured by this remedy; "Mist. Bismuth. Alb.," excellent for rapidly curing indigestion, vomiting, dyspepsia, &c., an elegant preparation; "Ring worm Specific," two or three applications will cure the worst case; "Tic Pills," most reliable and recommendable when all else has failed; "Itch Ointment," improved form of old-fashioned popular unguent, disinfectant and deodorant; "Chlorodyne," equals Brown's in every respect, freely miscible with water, easily made; "Gingerbeer Powder," "Lemonade Powder," best and cheapest in market; "Ess. Sennæ Dule," non-gripping aperient for children and adults, keeps well, 10d. lb.; "Peruvian Gout and Rheumatic Pills," preferred by many to Blair's, recommended with much confidence; "Quinine and Iron Tonic" (like Pepper's), bright and unchangeable, warranted excellent; "Anti-Cholera Drops," certain preventive of diarrhoea, infallible in cramp; "Podophyllin, Aloes, and Taraxacum," for all liver derangements and dispersing bile; "Essence of Deafness," simplest, safest, and most reliable remedy ever advertised; "Hair Producer," warranted to produce a healthy growth and strengthen weakly hair; "Conservatine," compound powder (like Glacialine), for preserving milk, meat, fish, &c., great success; "New Toothache Remedy," never fails in giving instant ease, without destroying other teeth; "Effervescent Depurative Saline," *fascimile* of Eno's, perfectly soluble, keeps well, costs 10d. per lb., &c. Recipes, 1s. 1d. each, six for 5s., post free, with full directions for making doses and all necessary information. T. Brooks, Chemist, Louth, Lincolnshire. N.B.—Receipts not approved of may be returned. Detailed lists post free on application. By kind permission foreign orders may be transmitted through the Publisher of this journal.

Important.—I have an invaluable recipe for Pate-de-Lichen, or Iceland moss paste, not distinguishable from Christian's in appearance, composition, or flavour, which in proper hands must prove an immense success. I am prepared to receive liberal offers for all exclusive rights in same, with full details of manufacture; to be addressed up to September 1 next to "Devoniensis," Broadthempston, Totnes. Stamp for replies.

Miscellaneous.

Five 2 gal. carboys, bottles, pots, Crosse's lime-juice, ditto cordials, sundries. 58/20.

Forty 7s. 6d. cases Bowler's Shepherd's Companion, cheap; 300 stoppered rounds, Harrop, Middleton, Lancashire.

A bargain, twenty-six gross turned wood pill-boxes, new, will sell at 9d. per gross. J. D., 151 Hoxton Street, London.

Large seed-mill, large iron mortar, parcel of sauces, sundries; exchange for any useful stock. R. C. Mason, Bromsgrove.

Gross citrate bottles, no corks, 6s.; gross square capers, 2s. 6d.; fig. 4 French scales, 5s. Padwick, Red Hill.

Bicycle, 53-inch, ball bearings; good condition; capital roadster, 4/1. or will exchange for microscope. Phillips, 34 Queen Square, Wolverhampton.

Gentleman's guinea macintosh, light and pliable, quite new, 12s. 6d.; also gun, 6/1. 6s.; double breechloader, latest improvements, great bargain, write for particulars; cartridge-loading implements, complete, 10s. 6d. 331 Lodge Road, Birmingham.

Six No. 1 compo mortars, 1s. each; 1 doz. 8 oz. elastic syringes, 21s.; ditto 12 oz., 36s.; half ream Rives' albumenized paper; two sets Silverlock's engraved labels; a Mondolot's sola-water machine, 30/; a Daveport's ditto, 59/., both capital condition, to clear out for larger plant. Day & Co., Herne Hill.

Large iron mortar and pestle, with cover for top and turned wood pedestal to stand on, 10s. 6d., cheap; one 1-gallon iron tincture press with feet (Maw's) 1/., cost double; one ½-gallon iron tincture press, with feet, 10s. 6d., cost double. I bought a three-lift beer-pump, but only requiring one lift for paraffin oil, I have the other two to sell. I will take 1/ for the two, they are just the things for paraffin oil and very cheap. S. Parker, 360 Leeds Road, Bradford.

WANTED.

Pill machine (rotary) to make pills ½-inch diameter. 53/10.

Fossi line, chrisma, vaseline, and similar preparations wanted cheap for cash. 55/11.

Lamp for shop front. Send particulars to Holmes, Chemist, Dublin.

Forty-gallon cistern, suitable for naphtha; apoldnaris bottles, quarts and pints. W. T. Hicks, 28 Duke Street, Cardiff.

Dr. Muter's books, "Analytical and Theoretical Chemistry," "Materia Medica"; last editions, cheap. "Chemist," London Street, Bath.

Large or small musical boxes, in or out of repair; will give valuable recipes in exchange, or part cash; also any mechanical instruments, or anything useful. Brooks, Chemist, Louth.

ADDRESSES AND INFORMATION WANTED.

Lieut. Booth, late Marines, son of Mr. Booth. Duchess Street, Maitland, Chemist, East India Road, London.

Trade Report.

THE Board of Trade statistics for July continue to furnish evidence that the trade of the nation is not progressing, while that section of it which has to do with chemical products is evidently in a far from thriving condition. The value of the imports for the month was 34,320,066*l.*, which was about 340,000*l.*, or nearly 1 per cent., less than in July, 1882. A very large increase of meat and animals imported partly balances a considerable diminution in the quantities of cereals. The exports were valued at 20,817,724*l.* in July, 1883, and 21,374,978*l.* in July, 1882. The following are the figures relating to chemicals:—

	July, 1882	July, 1883
Alkali.. .. . cwt.	567,024	479,996
Ditto value	£179,115	£152,426
Other chemicals	£200,968	£171,002

MINCING LANE, August 13, 1883.

We are glad to be able to state that the improvement in trade which we noticed in our last report has continued and increased, having extended to more articles and thus become more general. During the past week a quieter tone has prevailed again, but this is always the case with Bank-holiday weeks, when so many of the leaders of trade take advantage of the Bank holiday to add a few more days of rest to it.

We regret to say that since the date of our last report the band of death has been busy, and that two well-known and highly-respected old members of the Mincing Lane Rooms have passed away to their last resting-place.

One or two small failures have also taken place, but they are so small as to need no further mention. The drug sales have gone off with the same flatness as has characterised them of late, those of last week being remarkably dull and uninteresting.

The long-continued falling off in the shipment of alkalis is a bad feature, and is now becoming a matter for serious consideration amongst those most interested.

ACIDS.—There has been a fair business doing in both citric and tartaric, especially the latter, at 1*s.* 6½*d.* for foreign, 1*s.* 7½*d.* for English.

In Citric Acid the good position we mentioned in our last report has been maintained, sometimes with more, sometimes with less firmness, and to-day the price was 1*s.* 8½*d.* per lb. for spot, and 1*s.* 9*d.* for forward delivery.

There is, however, still a large stock in second hands which, together with a prevailing disposition on the part of one or two makers to sell directly the article seems to attain anything like a firm position, always appears to tend to keep citric in bad odour as a speculative article.

Oralic meets with but very poor demand at 6*d.* per lb.

ALOES.—Cape maintain their position, and in last public sales, out of 58 cases offered, about half sold at 47*s.* to 60*s.*, whilst really fine qualities command more.

Curacao are worth 50*s.* to 77*s.* 6*d.* per cwt.

ALUM.—A steady trade doing at unchanged prices of 6*d.* per ton for loose in lump, and 6*d.* 10*s.* ground in bags.

ANTIMONY continues steady, although the repeated offers of small lots in bags in public sale make it easy to buy one ton so packed at the price of ten ton lots in cases, namely, 22*l.*

Regulus steady at 40*l.*

ARSENIC, 10*s.* 6*d.* to 11*s.* per cwt. landed. Small sales.

BALSAMS are lower, with hardly any demand. Peru, 10*s.* to 10*s.* 6*d.*; Capivi, 2*s.* 2*d.*; Tolu, 2*s.* per lb.

BARK.—In last sales on July 31, although the quantity of South American and East Indian offered was less than usual, prices were decidedly easier, and a flat tone prevailed throughout the sales, except with regard to the druggists' quality which, being only in very limited quantity, sold well. Of 4,500 packages South American offered, only some 200 sold, and of 1,250 bales East Indian offered a very large proportion had to be bought in, although it was evident that

importers wished to sell even at lower rates. It is difficult to reconcile the extremely dull character of these sales with the subsequent rise in quinine.

BLEACHING POWDER having been in steadily increasing demand has advanced to 7*l.* 10*s.* per ton, and is very firm thereat.

BORAX, without change, at 58*s.* per cwt. nett to 61*s.*, less 2½ per cent.

CALUMBA ROOT sold in last sales at again lower figures; 17*s.* to 23*s.* per cwt. for low to middling qualities.

CAMOMILE FLOWERS.—The new crop of Belgian camomiles has now come into the London market, and is not up to the usual standard. The flowers are of a somewhat dwarfed character, and not so fine as those of last year. The usual high prices were asked for first arrivals, but rapidly declined to 65*s.* per cwt. At the end of last week, however, a recovery took place, and new are to-day worth 70*s.* per cwt. Some flowers, finer in character but of last year's growth, are obtainable at 45*s.* per cwt. Brown and old sorts are worth 15*s.* to 25*s.* per cwt. We do not expect to see prices much lower, and should the big French buyers, who are at present holding off, be forced to come into the market they may have to pay more in order to fulfil their requirements.

CAMPHOR must be quoted easier at 65*s.* for fine raw Japan. English refined, 12½*d.* per lb. in quantity; French refined, 11½*d.*

CARDAMOMS are dearer at 5*s.* 11*d.* to 8*s.* per lb. for Malabar sorts, although at these prices more were bought in than sold at last public sales.

CHIRETTAWAS conspicuous by its absence from last public sales, although we doubt not a large quantity could readily be found at from 3½*d.* to 4*d.* per lb.

CLOVES.—Zanzibar still 7*d.* per lb. for fair bright, with a firmer feeling during the last few days.

COCHINEAL continues very dull at lower prices of from 10*d.* to 1*s.* 1*d.* per lb.

COD-LIVER OIL we do not make to be quite so firm. Of 32 casks Norwegian offered in last sales only 10 new slightly-tinged sold at 14*s.* 6*d.*, the rest being bought in at 12*s.* to 14*s.* per gallon.

CREAM OF TARTAR has been advanced to 133*s.* per cwt., at which price it was quiet.

CUBEBS are perhaps not quite so firm at 10*l.* 5*s.* to 10*l.* 10*s.* per cwt

ERGOT OF RYE is easy at 8*d.* for fair Russian.

ESSENCE OF LEMON unchanged at 4*s.* 6*d.* to 6*s.* 6*d.* per lb.

GALLS are quiet at 48*s.* to 50*s.* 6*d.* per cwt. for Turkey sorts; China galls, 59*s.* to 61*s.* per cwt.

GENTIAN ROOT is easier to obtain for arrival, hence prices are a little lower at 30*s.* per cwt. for spot, 28*s.* per cwt. for forward delivery.

GLYCERINE quiet at 75*s.* per cwt. best.

IODINE very quiet at 4½*d.* to 5*d.* per oz.

IPECACUANHA was easier at 2*s.* 11*d.* to 3*s.* 9*d.* per lb. Damaged qualities from 2*s.* 7*d.* to 3*s.* 5*d.*

ISINGLASS.—Notwithstanding the continuance of but moderate supplies of East India isinglass the trade demand is very limited, and prices show no signs of improvement. At the public sales on July 24, 355 packages were offered, and only about one-third of these were disposed of with difficulty at prices in buyers' favour. Penang and Saigon leaf fully 2*d.* cheaper; Penang tongue rather cheaper, although occasionally steady rates were obtainable; purse, about 1*d.* lower; Kurrachee leaf almost unsaleable, although a few cases of reddish found buyers at the reduced price of 2*s.* 6*d.* All other sorts were bought in. Penang.—Of 177 cases 80 sold: Leaf, fine pale, 4*s.* 1*d.* to 4*s.* 2*d.*; good pickings, 3*s.* 3*d.* to 3*s.* 4*d.*; lower sorts, 2*s.* to 2*s.* 11*d.*; purse, middling and good, 10*d.* to 11½*d.*; low, 3½*d.*; tongue, good pale, 3*s.* 10*d.* to 3*s.* 11*d.*; dark to good middling, 3*s.* 4*d.* to 3*s.* 7*d.*; lower sorts, 1*s.* 8*d.* to 2*s.* 8*d.* Saigon.—Of 75 packages 14 sold; Leaf, good stout pale, 4*s.* 2*d.*; inferior and rough, 3*s.* 8*d.*; mixed pale circular, 4*s.*; tongue, very pappy,

1s. 1d. *Bombay*—103 cases offered, 22 sold: Pipe, red glassy, 3s.; dark reddish, 2s. 4d.; thin rejections, 1s 1½d.; old tongue, good middling to ordinary, 2s. 4d. to 2s. 7d.; purse, mixed, bold and ordinary, 8d.; inferior small, 5½d.; leaf, very red Kurrahee, 2s. 6d. per lb.

JALAP from 8d. to 1s., according to quality.

LEMON JUICE.—23l. per pip, f.o.b. Messina, is now the price.

MORPHIA SALTS are quoted at unchanged rates, although with some degree of caution on account of the unsettled position of opium.

OPIMUM has been in an excited state, and although stocks are fully 1,300 packages, not more than 200 can be called available, the remainder at present being withdrawn from the market pending an accurate report upon the present harvest. For what is to be had in the market, price is from 12s. to 20s. per lb., according to quality.

OILS.—*Aniseed* quiet at 7s. 8d. per lb.; *Citronelle*, lower and flat, at 1½d. per oz.; *Lemon Grass*, 1½d. per oz. American *peppermint* oils have been much talked about lately, and higher prices are asked, but which, as a rule, buyers have refused to submit to. The usual crop report is represented to be the cause of the rise, and much has been said about the failure of this year's peppermint crop. No doubt the stock is smaller than it has been for years, but at the same time we believe there is yet a fair quantity lying in London and elsewhere, and sufficient to meet requirements. H. G. Hotchkiss, 13s. per lb. asked, and Hale and Parshall, 12s. 6d. per lb.

OTTO OF ROSES.—The new crop prices have now been made known, and, as anticipated by us in our former reports, although less than those of last year they do not show a considerable reduction upon previous rates. Thus, Messrs. Ihmsen & Co.'s f.o.b. price of 35s. for Turkish ounce is but 1s. 6d. less than last year's opening price of 36s. 6d., which was afterwards increased to 38s. The position of the article in Constantinople is extremely firm, and, as soon as prices were generally quoted, some large business took place in London in all qualities, buyers showing some anxiety to get their orders booked. From present circumstances it appears highly improbable that prices will be any lower throughout the season; in fact, should any change take place later on, it is more likely, judging by the present outlook, to be the other way.

PIMENTO.—Stocks, by some large deliveries of late, have been much reduced, and are now about 22,500 packages. Price is also lower; and finest quality may be bought at 3d.

POTASH.—*Chlorate* is dull of sale at 5½d. per lb; *Prussiate*, 9½d. to 9¾d.; and *Bichromate* quiet at 5d. per lb.

POTASSIUM IODIDE very quiet, at 5s. 6d. per lb. English. Roque's French make, 5s. 4½d., packages free.

QUASSIA WOOD lower again, and in last public sales 55 tons sold "on account of whom it may concern" at 40s. to 42s. per ton.

QUICKSILVER higher at 5l. 12s. 6d. per bottle, but 5l. 10s. in second hands, and very quiet thereat.

QUININE is higher. On the 6th inst. German makes were advanced to 7s. 6d. per oz. in tin, in consequence of which, and a corresponding advance in American makes, Messrs. Howard & Son, on the following day advanced their price to 8s. per oz. in 1-oz. vials. We fail to find that much business has resulted, but, on the contrary, second-hand lots of each sort are now being offered at a little less than makers' prices. We hear nothing more about the reported combination of American and Continental manufacturers.

RHUBARB is in very fair demand at 3s. to 3s. 8d. per lb. for good qualities.

SALTPETRE, 24s. to 25s. per cwt. for refined. Quiet market.

SAFFRON.—Valentia qualities have gone a trifle lower at from 39s. to 43s. per lb., and are now very steady thereat. Alicante sorts unchanged at 25s. to 30s. per lb.

SALICINE, 7s. 6d. per lb., with a quiet trade doing.

SANTONINE, quiet at 12s. 6d. per lb.

SODA.—*Crystals* continue in a steady and good position at 3l. 10s. per ton, ex ship. *Bicarbonate*, 7l. 15s. per ton,

landed. *Caustic* easier, at 8l. 15s. cream and 9l. per ton white.

SULPHATE OF AMMONIA is a trifle lower at 16l. 10s. per ton grey and 17l. 10s. per ton white.

SULPHATE OF COPPER.—Telegraph crystals have become very scarce for spot delivery. Nominal price, 24l. per ton.

SULPHUR, 10s. 6d. to 12s. per cwt. for flowers; 9s. to 10s. roll, ex warehouse. Steady trade. *Sulpho carbonate of Potash* for vine-dressing, 26l. per ton delivered in London, petroleum-casks free.

VANILLOES remain fairly firm at the lower prices of 15s. to 22s. per lb.

WAX.—*Carnauba* has become very scarce, and 105s. is the present price. Small quantities, 110s. per cwt.

The following is a statement of the Stocks of certain Drugs in the Port of London on July 31, 1883, and the same a year previously:—

	1883	1882		1883	1882
Aloes	2,577	3,506	Gum (cont.)—		
"	7	3	Benjamin.. pkgs	2,191	2,224
"	76	91	Damar....	4,364	3,408
Aniseed, Star cchts	324	442	Galbanum ..	20	24
Arrowroot	10,727	10,365	Gamboge..	191	248
" bxs & tins	5,926	6,050	Guaiacum..	151	69
Balsam.....cks, &c.	113	285	Kino	159	204
Bark, Medicinal			Kowrie	725	570
cks & cs	4,188	4,206	Mastic	116	109
srns, &c.	89,880	68,094	Myrrh, E.I.	215	218
Borax.....pkgs	1,725	1,363	Olibanum..	8,865	9,110
Bees' wax			Sandarach..	1,671	701
"	784	531	Tragacanth pkgs	2,427	1,744
"	673	958	Ipecac.....cks & bgs	285	281
"	14	26	Jalap	393	239
Wax, Jap.vgtbl. pk	2,707	4,400	Nux Vomica pkgs	1,083	1,024
Camphor	5,846	5,783			
Cardamoms	581	728	Oil—		
Coc. Ind. bgs, &c.	351	624	Castor	485	775
Colombo root pkgs	2,015	1,690	"	10,745	14,189
Cream tartar	46	59	Palm	35	193
Cubebs	126	95	Cocoonant	5,092	11,104
Dragonsblood cchts	129	163	Olive	1,695	1,623
Galls, China, &c.,			Aniseed	231	170
bbs & cs	3,434	57	Cassia	244	318
Trky & Prsu sks	7,119	9,356	Opium	1,950	1,555
			Rhubarb.....chts	508	849
Gum—			Sarsaparilla ....bls	845	939
Ammoniac pkgs	278	261	Senna ....bls, &c.	1,406	2,168
Animi & Copal pkgs					
Arabic, Barbary pkgs	12,003	8,615	Shellac—		
Turkey ..	2,435	2,091	Orange.....chts, &c.	23,239	17,275
E.I.....	4,110	2,183	Garnet..	10,817	12,245
Assafetida ..	2,325	2,632	Buttton..	7,643	6,372
	334	498	Turmeric	973	1,919
			Vermillion ....chts	46	14

Clippings and Pickings.

"THERE is nothing very brilliant about our Bremen dentists," said a lady to a member of the profession in Berlin, "but they are very obliging. If you wish a tooth extracted with gas, they forthwith light the chandelier."

A LEXINGTON, Ky., doctor hangs out the following sign: "Dr. Tooles, scientific carver of toes and limbs; specialist and expert in removing rheumatism; corns and cramps extracted according to nature."

PROFESSOR HUXLEY says the presence of a rat in the house always indicates a connection with a sewer. This will surprise many persons who don't live within ten miles of a sewer, and are troubled with rats.

THE largest sponge in the world is said to be one eight feet in circumference, found at Key West. It has for some time been in the possession of Messrs. Lasker & Bernstein, St. Louis, U.S.A.

The manufacture of patent medicine in the United States involves a capital of ten and a half millions, and produces mixtures valued at fourteen and a half millions annually.

AT a medical examination at Glasgow candidates were asked to write in full Latin a prescription for a good antibilious pill, with full directions. One candidate wrote—"Recipe, pilule calomelanos compositæ, unam, statim."

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

	Last Month		This Month	
	s. d.	s. d.	s. d.	s. d.
ACIDS—				
Acetic..... per lb.	0 2½	to 0 2½	0 2½	to 0 2½
pure.....	0 5	.. 0 9	0 5	.. 0 9
glacial.....	0 8	.. 1 1	0 8	.. 1 1
Benzoic Sublimate.....	0 0	.. 3 6	0 0	.. 3 6
Ex Gum. .. per oz.	0 0	.. 0 6½	0 0	.. 0 6½
Citric.....	1 8½	.. 0 0	1 8½	.. 0 0
Gallic.....	3 2	.. 3 6	3 2	.. 3 6
Hydrochloric..... per cwt.	4 6	.. 7 6	4 6	.. 7 6
Nitric..... per lb.	0 3	.. 0 3½	0 3	.. 0 3½
Oxalic.....	0 5½	.. 0 0	0 6	.. 0 0
Sulphuric.....	0 0½	.. 0 1	0 0½	.. 0 1
Salicylic.....	6 9	.. 9 6	6 9	.. 9 6
Tannic.....	1 4	.. 2 6	1 4	.. 2 9
Tartaric, English.....	1 7½	.. 0 0	1 7½	.. 0 0
foreign.....	1 6½	.. 0 0	1 6½	.. 0 0
ANTIMONY, crude..... per cwt.	23 0	.. 0 0	22 0	.. 0 0
star.....	41 0	.. 0 0	40 0	.. 0 0
ARSENIC, Impure.....	24 6	.. 0 0	24 6	.. 0 0
powder.....	10 6	.. 10 9	10 6	.. 11 0
BRIMSTONE, rough.....	8 0	.. 8 6	8 0	.. 8 6
roll.....	8 9	.. 10 0	8 9	.. 10 0
flour.....	10 0	.. 12 6	10 0	.. 12 6
GLYCERINE, German				
refined.....	75 0	.. 50 0	75 0	.. 50 0
crude brown.....	40 0	.. 45 0	40 0	.. 45 0
IODIFORM..... per lb.	8 0	.. 8 2	8 0	.. 8 2
IODINE, dry..... per oz.	0 4	.. 0 0	0 4	.. 0 0
resublimed.....	0 6	.. 0 0	0 6	.. 0 0
MAONESIA, calcined..... per lb.	0 10	.. 1 4	0 10	.. 1 4
Hwds.....	5 0	.. 0 0	5 0	.. 0 0
MERCURY..... per bott.	108 9	.. 0 0	110 0	.. 112 6
PRECIPITATE, red..... per lb.	2 11	.. 2 11½	2 11	.. 2 11½
white.....	2 0	.. 0 0	2 10	.. 0 0
PRUSSIAN BLUE.....	1 8	.. 2 0	1 8	.. 2 0
SANTONINE.....	12 6	.. 0 0	12 6	.. 13 0
SALICINE.....	7 6	.. 0 0	10 0	.. 0 0
THYMOL.....	21 6	.. 0 0	21 6	.. 0 0
SALTS—				
Alum..... per ton	125 0	.. 0 0	125 0	.. 0 0
powder.....	125 0	.. 125 0	125 0	.. 125 0
Ammonia:				
Carbonate..... per lb.	0 6½	.. 0 0	0 6½	.. 0 0
Hydrochlorate, crude,				
white..... per ton	600 0	.. 760 0	600 0	.. 760 0
Sulphate.....	360 0	.. 380 0	340 0	.. 360 0
Argol, Cape..... per cwt.	83 0	.. 56 0	83 0	.. 96 0
Red.....	70 0	.. 85 0	70 0	.. 90 0
Operto, red.....	28 0	.. 42 6	33 0	.. 42 0
Bleaching powder.....	6 9	.. 0 0	7 6	.. 0 0
Borax, British refined.....	58 0	.. 62 0	58 0	.. 62 0
Calomel..... per lb.	2 6	.. 0 0	2 6	.. 0 0
Chloral hydrate.....	4 5	.. 4 7	4 5	.. 4 7
Liebreich's.....	5 8	.. 8 0	5 6	.. 6 0
Copper:				
Sulphate..... per cwt.	20 8	.. 21 0	20 6	.. 21 0
Copperas, green..... per ton	55 0	.. 0 0	55 0	.. 0 0
Corrosive Sublimate..... per lb.	1 11	.. 0 0	1 11	.. 0 0
Cream Tartar, French..... per cwt.	131 0	.. 0 0	132 0	.. 133 0
brown.....	110 0	.. 0 0	112 0	.. 0 0
Epsom Salts.....	4 0	.. 6 0	4 0	.. 6 0
Glauber Salts.....	4 0	.. 5 0	4 0	.. 5 0
Magnesia: Carbonate.....	40 0	.. 0 0	40 0	.. 0 0
Fond, Hwds.....	72 0	.. 0 0	72 0	.. 0 0
Morphie Murias.....	7 3	.. 7 6	6 6	.. 7 0
Phosphorus..... per lb.	2 3	.. 2 4	2 3	.. 2 4
Potash:				
Bromate.....	0 5	.. 0 0	0 5	.. 0 0
Carbonate:				
Potasbes, Canada,				
1st sort..... per cwt.	29 0	.. 0 0	29 0	.. 0 0
Pearlshes, Canada,				
1st sort.....	46 0	.. 43 6	46 0	.. 46 6
Chlorate..... per lb.	0 5½	.. 0 0	0 5½	.. 0 ½
Prussiate.....	0 10	.. 0 0	0 9½	.. 0 1½
red.....	1 11	.. 2 0	1 11	.. 2 6
Sulphate..... per cwt.	10 6	.. 11 0	10 6	.. 11 6
Potassium:				
Bromide..... per lb.	1 6	.. 0 0	1 6	.. 0 0
Chloride..... per cwt.	9 0	.. 0 0	9 0	.. 0 0
Iodide..... per lb.	5 6	.. 0 0	5 6	.. 0 0
Quinine:				
Sulphate, British, in				
bottles..... per oz.	7 6	.. 0 0	8 0	.. 0 0
Sulphate, French.....	7 6	.. 0 0	7 8	.. 0 0
Sulphate, German.....	7 0	.. 0 0	7 6	.. 0 0
Sal Acetate..... per lb.	0 8½	.. 0 0	0 8½	.. 0 0
Sal Ammoniac, British..... per cwt.	44 0	.. 45 0	44 0	.. 0 0
Saltpetre:				
Bengal, 6 per cent.....				
or under.....	19 6	.. 0 0	18 9	.. 19 0

Saltetre:—(cont.)

	Last Month		This Month	
	s. d.	s. d.	s. d.	s. d.
Bengal, over 6 per	0 0	to 19 0	18 0	to 18 6
cent..... per cwt.	24 0	.. 25 0	24 0	.. 25 0
British, refined.....	7 9	.. 8 0	7 9	.. 0 0
Soda: Bicarbonate.....	45 0	.. 0 0	45 0	.. 0 0
Hwds.....				
Carbonate:				
Soda Ash..... per deg.	0 1½	.. 0 1½	0 1½	.. 0 1½
Soda Crystals..... per cwt.	3 1½	.. 0 0	3 4½	.. 0 0
Caustic.....	9 3	.. 0 0	8 9	.. 9 3
Hyposulphite..... per cwt.	8 0	.. 8 6	8 0	.. 8 6
Nitrate.....	12 6	.. 0 0	11 3	.. 0 0
Zinc Sulphate.....	12 0	.. 14 0	12 0	.. 14 0
SUGAR OF LEAD, White.....	30 0	.. 34 0	30 0	.. 34 0
Brown.....	26 6	.. 0 0	26 6	.. 0 0
VERDIORIS..... per lb.	0 8	.. 1 0	0 8	.. 1 0
VERMILION, English.....	2 3	.. 0 0	2 3	.. 0 0
China.....	2 5	.. 0 0	2 4	.. 0 0
DRUGS.				
ALOES, Hepatic..... per cwt.	80 0	.. 140 0	70 0	.. 130 0
Socotrine.....	60 0	.. 190 0	60 0	.. 190 0
Cape, good.....	60 0	.. 50 0	50 0	.. 53 8
Inferior.....	45 0	.. 50 0	40 0	.. 53 0
Barbadoes.....	60 0	.. 150 0	60 0	.. 150 0
Curaçoa.....	43 0	.. 120 0	50 0	.. 103 0
AMBERGRIS, grey..... per oz.	60 0	.. 133 0	60 0	.. 123 0
BALSAM—				
Canada..... per lb.	2 2	.. 0 0	2 2	.. 0 0
Capi.....	2 0	.. 2 3	2 4	.. 2 5
Peru.....	11 0	.. 11 6	11 9	.. 0 0
Tolu.....	2 0	.. 2 1	2 2	.. 2 3
BARKS—				
Canella alba..... per cwt.	25 0	.. 27 6	25 0	.. 27 6
Cascarilla.....	10 0	.. 23 0	23 0	.. 0 0
CINCHONA—				
Peru, gray..... per lb.	0 9	.. 1 10	0 9	.. 1 11
Calisaya, flat.....	1 2	.. 2 0	1 3	.. 2 0
quill.....	3 9	.. 8 0	4 0	.. 7 0
Cartagena.....	0 6	.. 2 8	0 6	.. 2 8
Columbian.....	0 8	.. 4 0	0 8	.. 4 0
Cuprea.....	0 9	.. 2 0	0 6	.. 1 10
New Granada.....	1 0	.. 4 0	1 0	.. 4 0
Pitayo & Maracaibo.....	0 6	.. 1 10	0 6	.. 1 15
Red.....	2 0	.. 9 0	2 0	.. 9 0
East India, crown.....	1 0	.. 4 6	1 0	.. 5 0
red.....	0 6	.. 3 10	0 6	.. 3 6
BUCHU LEAVES.....	0 2	.. 1 4	0 2	.. 1 0
CAMPHOR, China..... per cwt.	62 6	.. 0 0	60 0	.. 0 0
Japan.....	65 0	.. 67 6	60 0	.. 65 0
Refin. Eng..... per lb.	1 1	.. 0 0	1 1	.. 0 0
Tablets.....	1 2	.. 0 0	1 2	.. 0 0
CANTHARIDES, China.....	2 6	.. 3 0	2 6	.. 3 0
Russian.....	3 9	.. 4 0	3 9	.. 4 0
CAMOMILE FLOWERS..... per cwt.	20 0	.. 80 0	20 0	.. 70 0
CASTOREUM..... per lb.	22 0	.. 32 0	22 0	.. 32 0
CHIRETTA.....	0 3½	.. 0 4	0 4	.. 0 5
DRAGON'S BLOOD, Ip..... per cwt.	70 6	.. 240 0	70 0	.. 240 0
ERGOT OF RYE..... per lb.	0 8	.. 1 0	0 7	.. 1 0
FRUITS AND SEEDS (see also Seeds and Spices)				
Anise, China Star..... per cwt.	95 0	.. 100 0	95 0	.. 100 0
Russian.....	20 0	.. 30 0	20 0	.. 31 0
Beans, Tonquin..... per lb.	3 0	.. 5 0	3 0	.. 5 0
Cardamoms, Malabar,				
good.....	5 0	.. 8 0	6 0	.. 10 0
inferior.....	4 0	.. 4 6	4 0	.. 5 0
Aleppy.....	4 6	.. 6 0	4 0	.. 5 0
Madras.....	2 0	.. 4 0	2 0	.. 4 0
Ceylon.....	2 0	.. 2 10	2 0	.. 2 10
Malabar sorts.....	4 0	.. 7 0	4 0	.. 7 0
Cocculus Indicus..... per cwt.	11 0	.. 13 0	11 0	.. 13 0
Colocynth, apple..... per lb.	0 10	.. 1 8	0 10	.. 1 3
Cubebs..... per cwt.	200 0	.. 210 0	205 0	.. 210 0
Cumin.....	30 0	.. 24 0	30 0	.. 34 0
Fenugreek.....	14 0	.. 0 0	14 0	.. 0 0
Juniper Berries.....	8 6	.. 11 0	8 6	.. 11 0
Nux Vomica.....	9 0	.. 12 6	9 0	.. 12 0
Tamarinds, E. India.....	8 0	.. 12 6	8 0	.. 12 0
West India.....	14 0	.. 18 0	15 0	.. 17 8
Vanilla, large..... per lb.	18 0	.. 27 6	20 0	.. 29 0
inferior.....	8 0	.. 15 0	8 0	.. 18 0
FLOWERS—Dalmatian.....	60 0	.. 50 0	60 0	.. 50 0
Caucasian.....	95 0	.. 0 0	95 0	.. 0 0
HONEY, Chili..... per cwt.	39 0	.. 52 0	39 0	.. 52 0
Jamaica.....	30 0	.. 40 0	30 0	.. 40 0
IPECACUANHA..... per lb.	3 0	.. 5 6	2 7	.. 4 0
ISINGLASS, Brazil.....	2 3	.. 4 6	2 0	.. 4 9
Tongue sort.....	2 6	.. 5 6	2 0	.. 5 3
East India.....	0 5	.. 4 9	0 6	.. 5 0
West India.....	2 3	.. 4 6	2 6	.. 4 5
Rues, leaf.....	7 0	.. 10 3	7 0	.. 10 3
Simovia.....	2 2	.. 2 4	2 2	.. 2 4
JALAP, good.....	0 9	.. 0 11	0 10	.. 0 11
infer. and stems.....	0 7	.. 0 9	0 7	.. 0 8
LEMON JUICE..... per deg.	0 0	.. 0 0	0 0	.. 0 0
LIME JUICE..... per gall	1 6	.. 0 0	1 8	.. 0 0
LIQUORICE, Spanish..... per cwt.	55 0	.. 100 0	55 0	.. 100 0
Liquorice Root.....	10 0	.. 25 0	12 0	.. 20 0
MANNA, fleshy..... per lb.	4 6	.. 5 0	4 6	.. 5 0
MUSK, Tonquin pod..... per oz.	67 6	.. 87 6	65 0	.. 80 0
Grain.....	40 0	.. 70 0	35 0	.. 60 0
Yunan pod.....	40 0	.. 50 0	40 0	.. 50 0
OILS (see also separate list)				
Almond, expressed..... per lb.	1 3	.. 1 5	1 3	.. 1 5
Castor, 1st pale.....	0 4½	.. 0 0	0 4½	.. 0 0
second.....	0 2½	.. 0 0	0 2½	.. 0 0
Cod-liver..... per gall	6 6	.. 16 0	8 6	.. 16 0

	Last Month			This Month		
	£	s.	d.	£	s.	d.
Essential Oils:						
Almond..... per lb.	31	0	0	30	0	0
Anise-seed, star ..	7	7	9	7	7	8
" German, &c. ..	8	0	14	8	0	13
Bergamot.....	6	0	10	6	9	8
Cajeput..... per bott.	3	0	3	3	3	0
Caraway..... per lb.	5	6	0	5	6	0
Cassia.....	3	10	0	4	0	4
Cinnamon..... per oz.	1	6	2	1	9	2
Cinnamou-leaf ..	0	24	0	0	23	0
Citronelle.....	0	18	0	0	17	0
Clove..... per lb.	4	6	4	4	6	5
Juniper.....	1	6	2	1	6	2
Lavender, Exotic ..	6	9	8	6	9	8
" Mitcham ..	130	0	0	130	0	0
Lemon.....	4	6	7	5	6	7
Lemongrass..... per oz.	0	17	0	0	17	0
Neroli.....	7	0	0	7	0	0
Nutmeg.....	0	8	0	0	8	0
Orange..... per lb.	12	0	0	12	0	0
Otto of Roses..... per oz.	15	0	38	18	0	33
Patchouli.....	1	4	2	1	4	2
Peppermint:						
American..... per lb.	11	9	12	12	0	0
(H.G. Hotchkiss) ..	12	3	0	13	0	12
English.....	30	0	32	35	0	0
German.....	8	0	15	8	0	14
Japan.....	7	0	9	7	0	9
(Cocking's).....	11	0	0	11	6	12
Rosemary.....	2	6	3	2	6	3
Sassafras.....	2	6	0	2	6	0
Spearmint.....	12	0	14	12	0	14
Thyme.....	2	6	0	2	6	0
Mace, expressed .. per oz.	0	2	0	0	2	0
Opium, Turkey..... per lb.	14	0	18	17	0	20
" inferior.....	10	0	13	12	0	15
Quassia (bitter wood) per ton	60	0	65	40	0	60
Rhubarb, China, good						
and fine..... per lb.	2	8	4	2	9	4
Middling to fair ..	1	0	2	1	0	2
ROOTS—Calumba .. per cwt.						
China.....	20	0	0	20	0	0
Cus-Cus.....	20	0	21	30	0	21
Galangal.....	26	0	28	24	0	28
Gentian.....	32	6	0	30	0	0
Orris.....	23	0	50	23	0	50
Pellitory.....	42	9	60	42	0	60
Pink..... per lb.	1	6	0	1	6	0
Rhatany.....	0	5	6	0	5	6
Seneka.....	2	5	2	2	4	2
Snake.....	1	6	0	1	6	0
Saffron, Valencia ..	40	0	40	39	0	44
Alicante.....	25	0	60	25	0	60
Sarsaparilla, Lima ..	0	6	0	0	6	1
Gnayaquil.....	1	2	1	1	2	1
Honduras.....	1	3	1	1	3	1
Jamaica.....	1	5	1	1	3	2
Sassafras..... per cwt.	0	0	0	0	0	0
Scammony, Virgin .. per lb.	30	0	75	32	0	35
second and ordinary ..	16	0	28	15	0	28
Senna, Bombay.....	0	24	0	0	23	0
Tinnivelly.....	0	3	1	0	3	1
Alexandria.....	0	9	1	0	9	1
Spermaceti, refined ..	0	14	1	1	3	0
American.....	0	24	1	0	104	0
Squills.....	0	3	0	0	1	0
GUMS.						
Ammoniac, drop..... per cwt.	2	8	2	2	11	3
Animi, fine washed ..	17	5	18	18	0	20
sots.....	8	0	13	8	0	13
Arabic, pale picked ..	1	13	2	1	10	2
sots, mid. to fine ..	1	5	1	1	5	1
Turkey, pick. gd. to fin.	5	0	9	5	10	7
second & inferior ..	2	5	4	2	5	2
sots.....	2	10	3	2	0	15
Assafetida, cam. to fin.	0	15	4	0	15	4
Benjamin, Siam, 1st						
& 2nd.....	16	0	30	25	0	42
Sumatra.....	2	10	12	2	10	12
s. d. s. d. s. d.						
Copal, Manila.....	25	0	52	25	0	52
Abola, red.....	145	0	162	145	0	162
Danmhar, pale.....	77	0	82	60	0	85
Euphorbium.....	17	0	20	17	0	20
Galbanum..... per lb.	0	3	0	0	3	0
Gamboge, picked pipe .. per cwt.	260	0	320	260	0	340
Guaiacum..... per lb.	0	5	2	0	5	2
Kino..... per cwt.	45	0	0	45	0	0
Kowrie, sots.....	65	0	80	65	0	80
selected.....	105	0	240	90	0	220
Mastic, picked..... per lb.	2	9	3	3	0	3
Myrrh, good and fine .. per cwt.	200	0	230	200	0	230
ordinary to fair.....	80	0	140	80	0	140
Olibanum, p. drop	40	0	45	40	0	45
amber & yellow ..	36	0	0	36	0	0
Senegal.....	45	0	0	40	0	45
Sandalwood.....	55	0	130	90	0	110
Shallao, Orange.....	70	0	120	80	0	140
Liver.....	71	0	80	75	0	80
Thus.....	25	0	0	25	0	0
Tragacanth, leaf.....	200	0	300	200	0	260
in sots.....	20	0	180	20	0	180
OILS.						
Seal, pale..... per tun	37	0	0	36	0	0

	Last Month			This Month		
	£	s.	d.	£	s.	d.
Oils:—(cont.)						
Seal, yellow to tinged .. per tun	35	0	40	33	0	34
brown.....	33	0	0	30	0	31
Sperm.....	20	0	0	70	0	72
Cod.....	36	0	0	38	0	0
Whale, South Sea, pale	34	0	35	34	0	0
yellow.....	31	0	0	30	0	0
brown.....	30	0	0	24	0	30
Sardine.....	25	0	0	25	0	27
OLIVE, Seville..... per ton	57	10	38	58	10	39
Gioja.....	36	0	37	36	0	37
Levant.....	36	0	0	36	0	0
Mogador.....	35	10	33	35	10	36
Spanish.....	35	0	0	35	0	0
Sicily.....	37	0	0	37	0	0
Ocoanut, Cochín.....	18	0	0	38	10	0
Ceylon.....	38	10	0	34	0	34
Mauritius.....	25	0	0	35	0	0
Palm, fine.....	44	10	0	39	0	40
Linseed.....	29	10	21	20	10	20
Rapeseed, English, pale	31	15	0	35	10	0
brown.....	29	15	0	35	0	0
Cottonseed.....	30	0	0	30	0	30
Lard.....	55	0	58	63	0	0
Tallow.....	45	0	47	25	0	47
TURPENTINE, American per cwt.						
Petroleum, refined .. per gall.	0	6	0	0	6	0
Spirit.....	0	6	0	0	6	0
SEEDS.						
Canary..... per qr.	10	0	53	60	0	75
Caraway, English..... per cwt.	0	0	0	0	0	0
German, &c.	23	0	26	23	0	26
Coriander.....	19	0	21	10	0	21
Hemp..... per qr.	36	0	38	38	0	0
Linseed, English.....	0	0	0	0	0	0
Black Sea & Azof ..	40	0	0	40	0	0
Calcutta.....	40	6	0	40	6	0
Bombay.....	41	0	0	40	6	0
St. Petersburg ..	37	0	58	35	0	38
Mustard, brown..... per bush.	10	0	15	10	0	15
white.....	8	0	14	8	0	14
Poppy, East India .. per qr.	43	0	0	43	0	0
SPICES.						
Cassia lignea..... per cwt.	53	6	31	34	6	0
Vera.....	50	0	27	24	0	28
Buds.....	39	0	40	40	0	41
Cinnamon, Ceylon:						
1st quality..... per lb.	1	0	2	1	0	2
2nd do.....	0	8	2	1	0	2
3rd do.....	0	9	1	0	8	1
Tellicherry.....	0	0	0	0	0	0
Chips.....	0	2	0	0	23	0
Cloves, Penang.....	1	7	1	1	7	1
Amboyna.....	0	10	0	0	10	0
Zanzibar.....	0	6	0	0	7	0
Ginger, Jam. fine..... per cwt.	95	0	190	80	0	180
Ord. to good.....	48	0	90	48	0	90
African.....	42	6	0	35	0	0
Bengal.....	40	0	0	38	0	0
Malabar.....	0	0	0	0	0	0
Cochin.....	45	0	112	40	0	110
Pepper, Black, Malabar per lb.	0	6	0	0	6	0
Singapore.....	0	4	0	0	6	0
White.....	0	4	0	0	9	0
Cayenne.....	0	7	1	0	7	1
Mace, 1st quality.....	1	7	2	1	7	2
2nd and inferior ..	1	3	1	1	4	1
Nutmegs, 78 to 60 to lb.	2	10	3	2	10	3
90 80.....	2	8	2	2	9	2
132 85.....	2	8	2	2	0	2
Pimenta.....	0	2	3	0	2	3
VARIOUS PRODUCTS.						
COCHINEAL—						
Honduras, black..... per lb.	1	2	1	1	2	1
silver.....	1	0	1	1	1	1
Mexican, black.....	0	9	1	0	9	1
silver.....	0	9	1	0	9	1
Teneriffe, black.....	1	1	1	1	1	1
silver.....	1	0	1	1	0	1
Galls, Thy blue.....	50	6	0	50	0	65
China.....	62	0	0	62	0	0
Indigo, Bengal.....	4	0	7	4	0	7
Madras.....	1	3	6	1	8	6
Kurrpah.....	1	10	5	2	0	5
Gude.....	1	9	5	1	9	5
Guatemala.....	3	0	6	3	0	6
Rosin, American..... per cwt.	5	3	12	5	6	11
Soap, Castile.....	28	6	0	28	0	0
Sox, China..... per gall.	1	7	0	1	7	0
Wax, BRES, English .. per cwt.	40	0	40	40	0	40
Jamaica.....	6	0	6/15	6/2/6	6/17/8	
East India.....	6	10	7	6	10	7
Vegetable, Japan.....	2	7	2	2	3	2
Parilla..... per lb.	0	4	0	0	4	0
Wood, Dye, Bar..... per ton	43	0	43/12/6	3	10	0
Brazil.....	12	0	20	25	0	0
Cam.....	7	0	20	16	0	30
Fustic, Cuba.....	0	6	8	0	6	8
Jamaica.....	5	10	5/12/6	5	10	5/12/6
Logwood, Campeachy ..	6	15	8	8	0	0
Jamaica.....	5	10	0	5	10	0
Lima, first pile.....	9	0	10	10	0	10
Red Sanders.....	5	5	0	6	0	0



The Proposed Pharmacy Bill.

To The Chemist and Druggist—

SIR,—Having put a copy of my lecture on "The Proposed Changes in the Pharmacy Act of 1868" into the hands of an old personal friend, who is also one of the sonnest as well as ablest lawyers in Glasgow, and who has long taken an interest in pharmaceutical matters, he has kindly favoured me with the accompanying notes on it. As my friend deals with the lecture and the questions discussed in it from "an outsider's" point of view, it occurs to me that possibly his judgment may carry more weight with it than that of one engaged in the trade, like myself.

If you share with me in this opinion, and you can make room for the notes, will only ask you to add this one note of my own on my friend's criticism. I hope your readers will ponder well the remarks on the "keeper and seller" in an open shop, for I hold that if his views (which have all along been my own) on that point be correct, and the Bill be carried as it now stands, the result will be the closing of at least nineteen out of every twenty chemists and druggists' shops in the country, and the promotion of the co-operative stores and of the large and wealthy grocers as the great dispensers of prescriptions in the future. They can afford to put "qualified" men at the back of their dispensing counters though the country chemist can not.

I am, &c.,

DANIEL FRAZER.

NOTES ON THE PHARMACY ACTS AMENDMENT BILL, 1883.

This Bill seems to be framed in a very involved and confused way, and some of its clauses seem to be at variance with each other.

The preamble is the *raison d'être* of the Bill, and proceeds to say that, for the safety of the public, any seller (in) or keeper of an open shop for the retailing, &c., of poisons and prescriptions should possess a competent filled knowledge, &c.

It will be observed that, although the language is not very grammatical, the preamble draws a distinction between a *seller* in a shop and a *keeper* of a shop, and rightly so, because, while a keeper may or may not be a seller, a seller may or may not be a keeper, still the important factor, so far as the public is concerned, is the *seller* or *vender*, and so Clauses 2, 3, 4, and 5 are specially directed against the vendor.

It may or may not be the case that this alternative provision is directed against co-operative stores; but if the Bill passes in its present state there would appear to be good ground for argument whether a co-operative store could be held to be "an open shop for the retailing, dispensing, or compounding of poisons and medical prescriptions." It might well be argued that co-operative stores existed primarily for the sale of teas and groceries, and that patent medicines were only incidental and accidental.

However that may be, Clause 2 is very stringent against all *sellers* by retail, and might possibly, notwithstanding the preamble, effect the actual vendor in a co-operative store. There seemingly is, however, no doubt that the prohibition attaches to *every vender* in a chemist's shop, whether qualified or not, because, in the case of assistants vending, Section 7 gives them relief against the *keeper* of the shop for their *quasi* criminal offence of a contravention of the Act. Were this relief for a *quasi* criminal offence not conferred by the Act, the responsibility and penalty would rest with the vending shopman. And it is to be remembered that this is a responsibility over and above, and beyond, what an employer is bound for the public for his servants.

Clause 4, as to the labelling of patent medicines, may be briefly said to be a total prohibition against the sale of foreign patent medicines unless the seller is prepared to accept the penalty, as there is little chance of his recovering it from the foreign vendor, and, indeed, the whole process of the recovery is left by Section 6 in a very inchoate form.

Section 8 specially provides that the duly-qualified keeper, if he does not assist himself in the sale by retail in any particular shop, shall, in lieu thereof, appoint a duly qualified person to be the retail vendor, and, apparently to make more explicit what is intended by this clause, Section 9 expressly proceeds to declare, it shall be unlawful to sell by retail unless the seller and the keeper possess certain legal qualifications, so that, apparently, though all these clauses, the Legislature intends to disqualify *every* person from being an actual *vender* of the scheduled articles, &c., who is not properly qualified, whether he be a druggist's assistant or otherwise.

A great responsibility appears to be developed upon the Pharmaceutical Society of Great Britain, and doubtless it could not be in better hands. Section 2 imposes the duty of from time to time declaring what should be added to the Schedule of Poisonous articles, and Section 10 and the remaining sections of the Bill provide the most elaborate machinery for the regulation of *sellers* in, and *keepers* of, open shops, the examination and calculation of such *sellers* and *keepers* and the recovery and application of penalties.

An outsider the Bill seems to be open to the objection that it proposes to mislead the public with regard to patent medicines by causing

them all to be branded as "Poison." It may be, and very likely is, the case that in many of these patent articles some drug is used which would be a poison in certain doses and under certain circumstances; but might not this be said of almost every article in the materia medica? It might have been sufficient protection for the public if the article were otherwise labelled, so as not to carry on the face of it a manifest untruth.

In conclusion, the Bill would be much improved by a careful revision by its draughtsmen, and with the addition of an interpretation clause, so as to remove some of the obscurities of its provisions.

Glasgow, July 27.

103/17. *Omicron*.—We regret that your query was overlooked. **Bisulphite** (not bisulphate) of Lime is used by aerated-water makers to prevent fermentative changes in syrups and sweetened beverages. A small quantity of an aqueous solution is added to the liquid to be preserved.

102/41. *M. C.* (Llanelli).—The metric system is fully explained in Roscoe's or Atfield's Chemistry. A small special text-book on it is published by Mr. Tully, Tinsbridge Wells.

85/22. A correspondent remarks:—"The French-polish Varnish to be applied with a brush, asked for in June, is, no doubt, the 'brush polish' used extensively in Sheffield for wood and stag knife-handles, and for polishing chairs and turned-wood articles. Your form is not a good one; ask some of the Sheffield druggists to supply a better."

L. B. (Dieppe).—**Bay Rum**, as used in the United States, is made by distilling the leaves and berries of the bay-berry (*Pimenta acris*, *Myrica acris*) in rum. The leaves, according to A. H. Riise, in a paper read before the Philadelphia College of Pharmacy, May 16, 1882, "are mixed in the still with the ripe berries in given proportions. The ethereal oil of the berries has a much stronger aroma than that derived from the leaves, and, consequently, a bay-rum distilled from the berries along with the leaves has a much stronger odour, and keeps its flavour longer than if distilled from the leaves alone." In this our correspondent will observe there is nothing inconsistent with making bay rum from the leaves alone, or even in making it from the oil derived from the leaves. Considerable licence is frequently taken with toilet preparations, and although a bay rum made artificially (this is without distillation) from the oil (from the leaves) would certainly be inferior to one distilled in the manner above indicated, we see no reason why it should not be accepted for what it really is, namely, an inferior imitation. Further information will be got by reading the paper referred to above, and also one by Professor Markoe on "Bay Oil," Transactions, American Pharmaceutical Association, 1878. Oil of the berries of *Pimenta acris* cannot be obtained in this country.

103/23. *J. W.*—**Sal Volatile**.—The formula suggested by Dr. Thresh for the preparation is as follows:—

Take of

Oil of lemons	3vsis.
Oil of nutmeg	5ivs.
Rectified spirit	6 pints
Water	3 "

Distil 7 pints, set this apart; then continue the distillation until 9 oz. more have been collected.

Take of

Ammonium carbonate	Oz. 4
Stronger solution of ammonia	8
The last portion of above distillate	9

Place in a bottle holding a little more than 1 pint, cork securely, and place the bottle in a water-bath at about 140° Fahr., shaking from time to time until all the salt has been dissolved. When cold, filter if necessary through a little wool, and pour into it gradually the 7 pints of distilled spirit. Solution may be effected without the aid of heat, but not nearly so readily; while it is apt to deposit crystals at low temperature.

The product will measure 1 gallon; its specific gravity is .886, and it contains 3.15 per cent. of normal ammonium carbonate, and 1.23 per cent. of free ammonia. Whilst not quite so strong as it is possible to make a spirit of ammonia by the official process, it is considerably above the average strength of the sal volatiles of commerce. From the more dilute character of the spirit none of the carbonate is thrown out of solution even at 0° C., and by the continuing the distillation a little beyond the point now ordered (in the British Pharmacopoeia), the whole of alcohol is contained in the finished product instead of a portion being wasted as heretofore.

In our February issue, page 57, we discuss the advantages and disadvantages of this process. The distillation seems to have special importance, and it is recommended to keep the distillate for a considerable time before adding to it the ammonia, to allow the odour, which is faint at first, to develop and mellow. The addition of the ammonia when this change has taken place produces a charming fragrance.

An Anti-vaccinator on Sir Lyon Playfair's Facts.

To The Chemist and Druggist—

SIR,—With Sir Lyon Playfair's speech published in last month's CHEMIST AND DRUGGIST, you were candid enough to insert its anti and ante date in the shape of the crushing speech of Mr. Peter Taylor, a remarkable recent convert to anti-vaccination views. Whilst the latter speech is hrimful of solid and indisputable facts most damaging to the doctrines of those who believe in vaccination, and who would in their fanaticism endeavour to enforce it with repeated penalties, the speech of the former gentleman abounds in fallacies of a most glaring description. I will, with your permission, make a few remarks on Sir Lyon Playfair's "remarkable" speech.

It is indeed a "remarkable" circumstance that any man should get up in Parliament and laud a practice about which pro-vaccinators themselves are not agreed. Some advocate "human lymph," others "calf lymph," and the greatest confusion prevails. Sir Lyon Playfair admits that the transmission of syphilis by vaccination is "possible." Is it not more than "possible"; is it not *probable* that this occurs much more frequently than is ever recorded? Hence the warning as to the "ghastly risk" pointed out by Sir Thomas Watson in the *Nineteenth Century*, June, 1880.

Is it worth while to run this risk, even if vaccination is a preventive or modifier of small pox? Is any parent justified in incurring such a fearful risk in the vaccination of his child for the sake of preventing a disease which it is not at all probable it will ever be subject to?

This is one of the risks—the most ghastly of the many—that vaccination renders the subject liable to. Vaccination was made compulsory in 1853, and yet, after twenty years (in 1870-71-72) of the almost universal enforcement of the practice, we had the most devastating epidemic of the century, for in 1870-71-72 the deaths from small-pox rose to 41,840 (for this and other astounding facts see Pearce's "Vital Statistics"), vaccinated and unvaccinated dying alike. Let me here remark that no anti-vaccinator declares that an un-vaccinated person is not liable to take small pox, if that person lives under such conditions as produce and foster it. The only preventive of small-pox and all other zymotic diseases is a doing away with the causes of those diseases. "Remove the cause, and the effect will cease." This is the only logical conclusion to come to. Jenner said, "Once vaccinated, protected for life"; or to quote his words:—"But what renders the cow-pox virus so extremely singular is that the person who has been thus affected is for ever after secure from the infection of the small-pox, &c." A most presumptuous statement to make! Since his day we have had thousands of vaccinated persons die from small-pox, Sir Lyon Playfair himself admitting, as he was bound to, the same condemnation of the practice. His contention appears to be solely that the unvaccinated die in greater proportion than the vaccinated. Well, admitting for argument's sake that they do (although the figures put forward by interested pro-vaccinators are open to grave criticism and question), we have to ask the question, "Why were they unvaccinated?" and the answer will account for the greater mortality if such is really the case. It is this: they were most probably infants of naturally delicate constitution, children of those whose very mode of living is a cause of small-pox, and hence they would be more liable to take small-pox or any other disease and succumb to it.

Sir Lyon Playfair says, "Now if sanitation affected small pox so greatly," &c. The small decrease of other diseases among children under five years of age is probably owing to the injurious practice of vaccination. Promote sanitation and abolish vaccination, which is blood-poisoning, and we should most certainly see the death rate much reduced. Your space will not admit of any further comments on Sir Lyon Playfair's "flammy"; but if any of your readers do not know much about the question, and would like to dip deeper into it, I shall be happy to send them copies of the *National Anti-compulsory Vaccination Reporter* (which has this month, amongst other items, an article on Sir Lyon Playfair's "flammy"), or the *Vaccination Inquirer*, by means of both of which papers the vaccination question is being rapidly pushed to the front, and the day will come when vaccination will be more generally—even universally—denounced as a huge sham and a fearful delusion, and when the iniquitous Vaccination Acts will be regarded as the greatest piece of despotism of the nineteenth century.

16 and 17 Cliffe, Lewes, August 2.

I am, sir, yours faithfully,

W. T. MARTIN.

P.S.—It appears that in an "authorised edition" of Sir Lyon Playfair's and Sir Charles Dilke's speeches on Mr. P. A. Taylor's motion, entitled "Facts about Vaccination," the first "fact" given is that Mr. P. A. Taylor is the M.P. for Nottingham. This error may be taken as a specimen of the "facts" to be found from the beginning to the end of the book.

The Elevation of Pharmacy.

To The Chemist and Druggist—

SIR,—It has been the custom of a certain class of medical men in this district to conduct practice in a style vindictively hostile to the retail pharmacist, any prescription which a patient persists in sending to a regular chemist being carefully rendered unremunerative by ordering only some small proprietary preparation therein, and the patient being told that he is not to pay more than the co-operative price for it. It is the opinion of the retail branch of the business that occult verbal instigations and suggestions to the pursuance of this policy are not conducive to the "elevation of pharmacy" in general, nor to that of respectable pharmacists in particular, in spite of the professions of sympathy reported from the Council of Bloomsbury Square. There remains more to be said, if necessary.

I am, yours obediently,

A MIDLAND CHEMIST.

103/27. F. W.—Bleaching Sponges.—The subjoined is from the July number of *Neu Remedien*:—

Several correspondents of the *Pharmaceutische Zeitung* communicate methods for bleaching sponges, all of which we have been acquainted with ourselves, and which we can recommend as quite satisfactory.

1. First clean, wash, and squeeze out the sponges; then dip them into a 2 per cent. solution of permanganate of potassium. Here they become quite brown (from separated manganic oxide); after ten minutes they are taken out, washed in water, again well pressed, and then dipped into a 2 per cent. solution of oxalic acid [we prefer diluted sulphuric (1 to 20) or diluted hydrochloric acid (1 to 15)], in which they become perfectly white. Success mainly depends on the soaking in the permanganate solution; if they are macerated too short a time, they do not become thoroughly white; if too long, they are apt to become rotten (Dr. Siemens).

2. First clean the sponges by immersing them in diluted hydrochloric acid. Then soak them in the bleaching liquid, composed of hyposulphite of sodium, 1 part; water, 12 parts; and hydrochloric acid, 2 parts. After some time they are removed and well washed. To the last wash water a little glycerine is added in order to preserve the sponges soft. The liquid is best pressed out by passing the sponges through a clothes-wringer.

3. Toilet sponges, which have been in use, often become peculiarly slimy, fatty, and almost useless, owing to some action of the soap. Mere washing in distilled water does not remove the difficulty. It may be overcome by using fused chloride of calcium. The sponge is pressed as much as possible, placed on a plate, the powdered chloride of calcium sprinkled upon it, and allowed to deliquesce upon the sponge. After about half an hour the sponge may be washed in water and dried, when it will become white (M. v. Valta).

Though all the above processes furnish satisfactory results, yet the following combination and modification of two of the above processes, which was devised by Mr. John Borham, and has been in use in Bellevue Hospital for a considerable time, will be found to work better still:—

Soak the sponges, previously deprived of sand and dirt by heating and washing, in a 1 per cent. solution of permanganate of potassium. Then remove them, wash them thoroughly with water, and press out the water. Next put them into a solution of $\frac{1}{2}$ lb. of hyposulphite of sodium in 1 gallon of water, to which 1 oz. of oxalic acid has been added, and leave them in the solution for fifteen minutes. Finally, take them out, and wash them thoroughly.

By this treatment the sponges are rendered perfectly white. Many sponges contain a more or less dark-coloured, brownish core. If treated only with permanganate and acid, the core is either not bleached at all, or if it has been somewhat bleached, the tint is apt to grow again darker. By the above modification, every portion of the sponge is rendered white, and remains so.

103/22. Dens.—A chemist or anyone else may extract teeth and charge for doing so; though he cannot sue for his fee if the patient refuses to pay. It is illegal for any but registered dentists to assume the title "dentist," or any other likely to lead the public to believe that they are duly registered dental practitioners. To become registered a diploma must be obtained by passing certain examinations, full details of which will be given next month.

101/63. Pyrogallic Hair-restorer.—One form used on the Continent consists of a solution of 2 parts of pyrogallic acid in 90 parts of water, and 5 parts of perfumed spirit. The hair is first washed with soap or a very dilute solution of washing soda, or, better, with diluted ammonia, and then thoroughly brushed with the solution every two or three days.

101/31. A Reader asks for a prescription which appeared some time ago recommended by a German professor, for fever and ague, and said to have been adopted by the German Government as superior to quinine given alone. Can any other Reader supply this?

101/51. Zingib.—Gingerine can be profitably made only on the large scale. The process consists in exhausting the ginger with spirit and distilling off the menstruum. The Board of Inland Revenue, by special concession published in our June number, allow the use of methylated spirit for this purpose. There is a work in German on the manufacture of essential oils, "Die Fabrikation der ätherischen Öle," by Dr. George William Askinson, published by Hartleben, of Vienna, which may give you some particulars, but we have never seen the book.

A Sixteenth-century Mortar.

To The Chemist and Druggist—

SIR,—I have had lately come into my possession "a relic of y^e ancient times" in the shape of a bell-metal mortar, weight about 100 lbs., and cast in the year 1598. Running round the middle of the mortar outside is a floriated pattern, 2 inches wide, very ornamental, and about 2 inches from the top is this inscription in plain bold characters: "R. Wright made me, 1598." Have any of your numerous readers so old a one, or one with the same founder's name?

Newport, Salop.

T. W. PICKEN.

Celandine, writes *Xenophon* (42/100), is a similar preparation to the Russian form for cure of warts and corns you gave in THE CHEMIST AND DRUGGIST some time ago, viz.:—

	Parts
Acid salicylic	30
Ex. cannabis ind. .. .	5
Collodion	240

I have made the above and compared the two and see no difference. Celandine is put up in 3ss. bottles, and retailed at 1s., and prepared by the firm you name.

Sale of Spirits of Wine.—Mr. C. T. Raynor, Derby, writes:—I have received the enclosed notice, unasked, from the Revenue Office here. I saw in your journal some time ago that chemists could sell S. V. R. in small quantities without licence, and thought you might wish to be informed upon the subject.

The Inland Revenue notice referred to runs as follows:—"Respecting the sale of spirits of wine by chemists. Chemists are not entitled to sell pure and unmedicated spirits of wine without licence. Inland Revenue."

The statement in THE CHEMIST AND DRUGGIST (July, 1880) was not a blunt assertion that chemists can sell small quantities of S. V. R., but was a letter from the secretary of the Board of Inland Revenue, in which it was stated that "the Commissioners, having regard to the difficulty which would otherwise be experienced by medical and scientific gentlemen in obtaining alcohol for purposes of medical and scientific research, do not interfere with the sale by chemists to such persons of small quantities not exceeding 8 oz. at a time." Beyond the limits of this concession, clearly laid down, retailers may not presume.

102/45. *N. E.*—Apprentices.—In our May issue we published an article on the law of apprenticeship, and "N. E.'s" query seems to come easily within the principles there laid down. He asks, "Can bound shop apprentices demand their wages for a fortnight's holiday granted by the master?" In the first place it seems certain that apprentices are entitled to reasonable holidays according to the custom of the trade. And, secondly, as the master is bound to pay wages during the apprentice's temporary illness, unless such illness is caused by the apprentice's own misconduct, he would almost certainly be bound to pay them during a holiday granted by himself. Whether it would be wise for the apprentice to demand them is another question, only to be decided by taking many other things into consideration.

102/46. *T. B. A.*—Silicate paint is evidently what you want. Two or more coats will make the wall damp-proof as well colour it.

Santonine—In our report of the Amsterdam Exhibition, on page 277 (June, 1883), it is mentioned that in the display of Mr. Merck, of Darmstadt, "is a large bottle of santonine of a beautiful bright yellow, put, evidently by an error, in a white bottle." Referring to this, Mr. Merck writes:—"You seem to be under the impression that I put the santonine in a white glass bottle by mistake. This was, however, not the case, as I did so deliberately, knowing, of course, quite well, that exposure to the light would make the article turn yellow; but my idea was that it was of no use to send a product for exhibition in a bottle in which no one could see or admire it. Just the fact of its turning yellow has the tendency to prove that the article is genuine, and I have found that an article which was brought under the notice of the public some years ago with the recommendation of being white in colour and remaining so, was boracic acid, and not santonine at all!"

55/39. *Dentifrice*.—Armenian bole is used in making rose dentifrice, and may answer the purpose of giving a rosy tint where carmine is too expensive and too purple.

102/17. *K. E. R.*—Megilp. Magilp. Megellup (the name is spelt in many other ways) is a mixture of pale linseed oil and mastic varnish, employed by artists as a vehicle for their colours. The proportions vary according to the work. It is thinned with turpentine.

64/100. *J. P.* asks whether a licentiate of Apothecaries' Hall, Dublin, keeping open shop, is entitled to put "chemist and druggist" on his sign and labels? Our correspondent writes from an English town; we presume, therefore, his inquiry refers to the rights of apothecaries in Great Britain, not in Ireland. The British Act provides, in clause 17, that "nothing hereinbefore contained shall extend to or interfere with the business of any legally-qualified apothecary." It is a section previous to this which prohibits the use of the title "chemist and druggist" by anyone not duly registered. At first sight, therefore, it would appear that an apothecary was not affected by the section and might use the title. But it will be noticed that the words of the 17th section are that nothing heretofore, &c., shall interfere with the business of a legally-qualified apothecary, and we think it very doubtful whether a court would hold that it was any part of the business of an apothecary to call himself a chemist and druggist. In Ireland a licentiate of Apothecaries' Hall may claim registration as a pharmaceutical chemist on payment of the fees. As we understand, the Irish Council having taken no steps in regard to providing a class of "chemists and druggists," anyone may assume that title there, though he may not sell poisons nor dispense physicians' prescriptions.

A New Zealand correspondent tells us that a customer had requested him to serve him with 6d. worth of "ambitious" pills. Did he do right by giving him "antibilious" pills?

102/16. *Ignorance.*—Local Secretaries to the Pharmaceutical Society are appointed for the convenience of carrying on the Society's operations, but they have no legal standing, nor is there anything regulating their conduct or appointment in the charter, Pharmacy Acts, or bye-laws. They need not be pharmaceutical chemists, and, as a matter of fact, nine of the first twenty on the list for 1882 are not. We presume, however, all are members or associates. Their position is honorary and entails no legal responsibilities.

It is almost impossible to advise you what books to read for the Major examination with a knowledge of your present attainments. Sachs' "Botany," Flickeiger & Hanbury's Pharmacographia, Rose & Schorlemmer's "Chemistry," Atkinson's Translation of Ganot's "Physics," are all useful books, but this does not exhaust the list.

102/72. *R. W.*—The only journal of the kind we know of is the *Dyer and Calico Printer*, "the accredited representative of the various trades connected with dyeing, cleaning, bleaching, drysalting, soap and chemical trades," published on the 1st of each month by C. Denston, 24 Bouverie Street, E.C., price 5s. a year.

103/7. *J. C. S.* (Tadmorden).—At present there is no rule requiring a chemist's apprentice to pass the Preliminary examination before he can be legally bound. The new Pharmacy Bill, if it passes, will make an alteration in this respect.

We do not know of any book of instructions for a chiropodist. Can any reader supply the information?

102/66. *G. C.*—A case was tried at Cambridge towards the end of 1879 relating to a baking-powder in which all the tartaric acid had been replaced by alum. The judge found that the use of alum in this form was not adulteration, so that there would be no need to declare the composition on the label.

V. Krehan, in Austria, has invented a baking powder which is made of 180 parts of crude alum, 75 parts of bicarbonate of soda, and 50 parts of the "less basic" phosphate of lime. This last ingredient, which is denominated "less basic phosphate," is the product obtained by pouring a 10-per-cent. hydrochloric acid on an equal weight of bone-meal burnt white. On pouring water upon this baking powder carbonic acid is formed, and sulphate of soda and potash, while the alumina separates. The alum is completely decomposed, so that the inventor considers it harmless. One ounce is sufficient for 1½ lb. of flour.

102/62. *Verax.*—A registered chemist and druggist who has been out of business for some time should make sure that his name is on the Register before recommencing business as a chemist. If his name has been removed he should apply to the Registrar, at 17 Bloomsbury Square, to have it reinstated.

103/3. *J. W. L.* (Leeds).—Quinine wine made strictly according to the British Pharmacopœia may be sold without patent-medicine stamp or sweet wine licence, so long as the maker claims no secret or proprietary rights, and does not recommend it for the cure of diseases.

55/16. *J. W. S.*—We will try to get information concerning Briggs's patent by next month.

102/65. T. H. W. asks for an excipient for a pill mass consisting of

Pulv. aloes soc.	3j.
Pulv. jalape	3j.
Pulv. extr. coloc. co.	3ij.
Pil. hydrarg.	3ij.
Extr. hyoscyami	3j.

Water, rectified spirit, mucilage, and tragacanth mucilage make pills which lose their shape directly.

[Pills made from the above formula will fall whatever excipient is used, unless care is taken in the massing and rounding of them. We have made them with a mixture of alcohol and water, with a tough extract such as gentian, and with a slight increase in the proportion of hyoscyamus extract, and we find that with care the first gives very satisfactory results, the pills giving no indication of falling or pitting after standing twelve hours. With the last two excipients still better results are obtained, but they both increase the bulk of the mass. We should, therefore, say that a mixture of spirit and water would make the best excipient, care being taken not to make the mass soft, and not to use too much friction in rounding the pills.]

103/6. Inquirer asks what is balsam of cryngo, ordered in a veterinary recipe with camphor, torps, fish oil, &c. It is just possible that it may be a preparation of water cryngo (*Eryngium aquaticum*, or button snake-root), although it may merely be intended for Riga balsam.

Prepared Cochineal.—The subjoined formula is recommended by a first-class London pharmacist:—

Powdered cochineal	2 parts
Carbonate of potash (salt of tartar)	3 parts
Glycerine	8 fluid parts
Water	24 parts

Rub well together in a mortar or large earthenware vessel, then add gradually—

	Parts
Cream of tartar	2
Powdered alum	3

When effervescence has ceased, filter through a filtering-bag and set the filtrate aside. Upon the marc pour more water until it passes through without any or with very little colour; mix the two liquors and evaporate to thirty-two fluid parts.

This preparation keeps very well; if properly made ten minims should give a distinct and beautiful rose tint to half a gallon of water.

FRENCH CORRESPONDENCE.

— At its session, on July 11, the Paris Municipal Council requested the Prefect of the Seine to take steps to obtain from the Government permission for the City of Paris to erect furnaces for cremation in the three great cemeteries, to be used only in times of epidemics. This is one of the precautions that are being taken against cholera.

— M. Vasey, the Paris pharmacien, whose severe sentence for frequently repeating, without new prescriptions, supplies of morphia to a Madame Tunot we mentioned in May, has been heard in the Court of Appeal. The original sentence was eight days' imprisonment, 1,000f. fine, and 2,000f. damages to the husband, and with liberty to the latter to sue for further damages. The Court of Appeal has maintained the sentence of imprisonment, but has reduced the fine to 500f., and has made the sum of 2,000f. as damages definitive.

— At a recent meeting of the Société de Pharmacie, convened specially to consider a report which was intended to serve as a preliminary chapter to the forthcoming edition of the *Code*, it was decided that, instead of attempting to define a tablespoonful as a measure of weight or of volume, it would be preferable to propose to medical men to agree that, when they prescribe a tablespoonful, they are to be understood to order a quantity equal to 15 grammes of distilled water. At the same meeting, the size of the normal *comptegoutte* was defined that the diameter of the tube at the point from which the drop falls should measure 3 millimetres exactly. An opinion was also expressed that the practice of measuring certain very volatile liquids by drops should be abandoned.

Suggestions.

ANTS on a lawn will very soon destroy its beauty. Petroleum is the readiest means of expelling them.

LEWIS, quoted in the *Medical Bulletin* of Philadelphia, says that during the use of balsam of copaiha, the urine furnishes a deposit with nitric acid, which consists of copaihic acid, and may easily be confounded with albumen.

UNG. HYDRARG. WITH ARSENIC FOR WARTS.—Professor Unna recommends for the treatment of venereal and ordinary warts the continuous application of ung. hydrarg., containing 5 per cent. of arsenic. A cure is effected by resorption, not by necrotic destruction.

THE *Iowa Homestead* learns from a subscriber at Sharon Centre, in that State, that the way to get rid of lice on cattle is to take water that potatoes have been boiled in, and wash or wet the cattle thoroughly to the skin with it. If properly applied it is a sure cure.

SANTONINE should be administered, according to Lewin, of Berlin, in such form as shall prevent its ready absorption, as when absorbed its usefulness is at an end. He recommends to mix 3 grains with 2 oz. of olive or other oil; this quantity to be given in 4 doses.

A MAN advertises in the Swabian journals offering to send for 90 pfennige instructions how to prevent smell in closets at a trifling cost. The *Pharm. Rundschau* gives his advice, which is to buy some green vitriol (sulphate of iron), costing a mere trifle, pour water over some crystals, and pour down the passages. The advice is dear, but is not bad.

W. W. JOST (*Am. Journ. Pharm.*) prepares tinct. iodi by percolation by rubbing the iodine to a coarse powder, packing it tightly in a glass syringe capable of holding 2 oz., the orifice of which has been plugged with cotton wool, and passing the alcohol slowly. By this process a pint of tincture can be prepared in 30 minutes.

MOSQUITO-BITES are prevented (according to a correspondent of the *Pharm. Zeit.*) by painting all the exposed parts of the body, at night, face, neck, and hands, with a tincture made of pulv. pyrethri 20, ether acetic 10, spirit 70. Another correspondent recommends oil of pennyroyal 1, and spirit 15. Lavender or rosemary oils, or petroleum, are also spoken of favourably.

FOR moist hands and feet, Mr. C. J. Boyd Wallis, 23 Brook Street, Grosvenor Square, recommends in the *British Medical Journal* the application of the following powder:—Acidi salicylici, 5j.; naphthol, 5j.; pulv. amyli, 5iv.; misce et adde olei eucalypti, 5ij.; pulv. terre cimolice (Taylor's), 5iv. The parts should be previously washed with 20 per cent. carbolic soap.

PREVENTION OF FADING IN SHOP-WINDOWS.—The Swiss *Gewerbe Blatt* says that fading or bleaching of goods in shop-windows is occasioned only by the white rays of light, and that if, instead of colourless glass, the window-panes consist of glass which is slightly yellow, the bleaching or fading process is prevented, or the desired effect may be produced by simply giving the panes a coating of copal varnish.

T. S. WIEGAND (*Am. Journ. Pharm.*), with a view of ensuring more perfect division of the active ingredients in pulv. ipecac. et opii, recommends as a process preferable to that of the Pharmacopoeia the following:—Take 1 part of extract of opium, dry enough to powder, dissolve in a mixture of water 3 and alcohol 1, sufficient to make a smooth paste, with 2 parts of ipecac. and 17 parts of sugar of milk. Dry, rub to an impalpable powder, and pass through the finest bolting cloth.

To obtain positive copies of drawings, &c., the *Photographic News* says coat suitable paper with a two per cent. solution of bichromate of ammonium, to which a little grape sugar has been added, and dry in the dark. The drawing is laid upon it and exposed to light until the prepared paper has assumed a gray colour. It is now dipped into a one per cent. solution of nitrate of silver, one-tenth of the volume of which consists of acetic acid. The positive image developed thereby consists of bichromate of silver, which becomes dark brown on drying.

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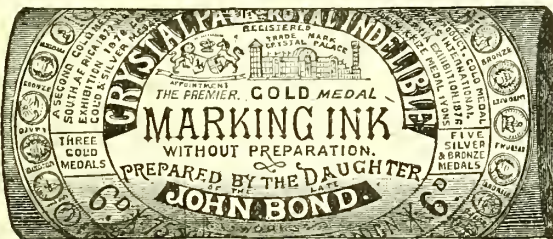
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6d. Wrappers	30/-
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6d. Pedestals	36/-
1 - "	72/-



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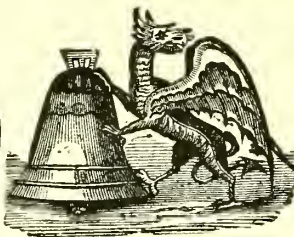


1880.

ADELAIDE,

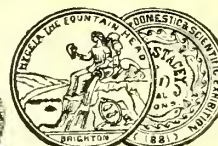


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Rich in **Diastase**; and in **Trypsin**, the *ferment* of the **Pancreas** which converts **albumen** into **PEPTONE**.

Five grains of *Extractum Pancreatis* added to a pint of milk at 100° F. will convert all the *casein* into *peptone* in one hour; the milk cannot then be curdled even by strong nitric acid, or by rennet.

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In many cases it is sufficient to only *partially* digest the milk—for 20 to 30 minutes or so—then little or no bitter taste is developed.

When *Extractum Pancreatis* is added to *tepid* milk—without soda—it first produces a **soft, flocculent curd**, which it then gradually digests.

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Peptonised and *partially* *peptonised* milk has been extensively used with most excellent results in the milk-indigestion of bottle-fed infants, as a food for the sick in Typhoid Fever, Gastric Catarrh, &c., and is given for nourishment after severe operations by eminent gynecologists and surgeons in New York.

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 BOLDO (*Peumus Boldo*).
 BURDOCK (*Arcetium Lappa, Lappa minor*).
 CASCARA AMARGA (*Picramnia*).
 CASCARA SAGRADA (*Rhamnus Purshiana*).
 CEREUS BONPLANDII (*Cactus Bonplandii*).
 CEREUS GRANDIFLORUS (*Cactus grandiflorus*).
 CHEKEN (*Myrtus Chekan*).
 COCA LEAVES (*Erythroxylon Coca*).
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 " " Flowers " "
 " " Root " "
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 COTO BARK (*Para-Coto*).
 COTTON ROOT BARK (*Gossypium herbaceum*).
 CULVERS ROOT (*Leptandra Virginica*).
 DAMIANA (*Turnera aphrodisiaca*).
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 FLEABANE (*Erigeron Canadense*).
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 JABORANDI (*Pilocarpus pennatifolius*).
 JAMAICA DOGWOOD (*Piscidia erythrina*).
 KAVA KAVA (*Piper Methysticum*).
 MANACA (*Franciscea uniflora*).
 MANDRAKE (*Podophyllum peltatum*).
 MISTLETOE (*Phoradendron flavescens*).
 PENTHORUM SEDOIDES (*Virginia Stonecrop*).
 POKE ROOT (*Phytolacca decandra*).
 PRICKLY ASH BARK (*Xanthoxylum fraxineum seu Carolinianum*).
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 WAHOO (*Euonymus Atropurpureus*).
 WILD CHERRY (*Prunus Virginiana*).
 WILD INDIGO (*Baptisia tinctoria*).
 WITCH HAZEL (*Hamamelis Virginica*).
 YELLOW DOCK (*Rumex crispus*).
 YERBA REUMA (*Frankenia grandifolia*).
 YERBA SANTA (*Eriodyection Californicum*)

CONCENTRATED TINCTURES:—

LIPPIA MEXICANA.

HOANG-NAN (*Strychnos Gaultheriana*).

CONCENTRATIONS:—

BAPTISIN (from *Baptisia tinctoria*).
 EUONYMIN, Brown (from Bark of Root of *Euonymus
 Atropurpureus*).
 EUONYMIN, Green (from Bark of Twigs of *Euonymus
 Atropurpureus*).

HYDRASTIN (from *Hydrastis Canadensis*).
 IRISIN (from *Iris versicolor*).
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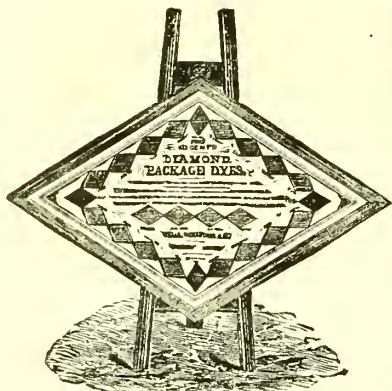
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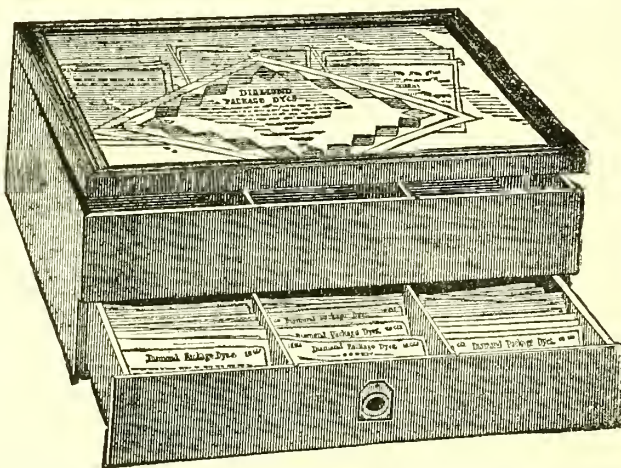
All kinds of fancy work, and every species of fabric or fibre.

Price per Package, 6d.

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Light Blue	Brown
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Dark Blue	Navy Blue
Dark Green	Seal Brown
Cardinal Red	Old Gold
Olive Green	Dark Wine
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Purple	Slate
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This Fine Black Walnut Counter Case given with the first two-gross order.

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Maroon	Blue for Cotton
Crimson	Yellow "
Black	Scarlet "
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For Colouring Easter Eggs, Feathers, Grasses, Mosses, everlasting Flowers, &c., &c., the DIAMOND DYES are the best in the world.

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This preparation may be used to decorate all articles on which Bronze produces the most appropriate effect. A coating of Diamond Bronze Paint will cause a well made plaster figure to resemble a costly example in solid Bronze.

Chandeliers, Gas Fixtures, Lamps, and Ornaments, may be made fully equal to new, and at an insignificant cost. It is easily applied, and dries in a few moments.

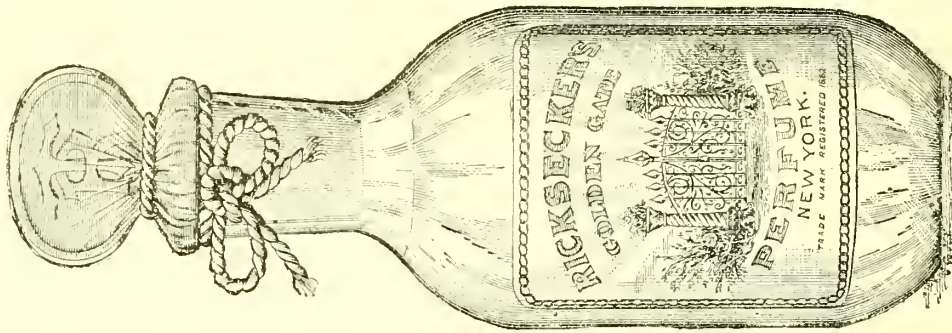
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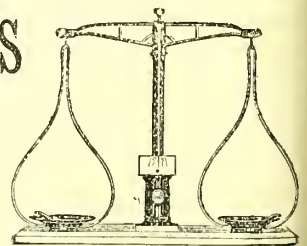
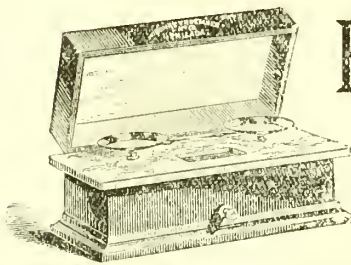
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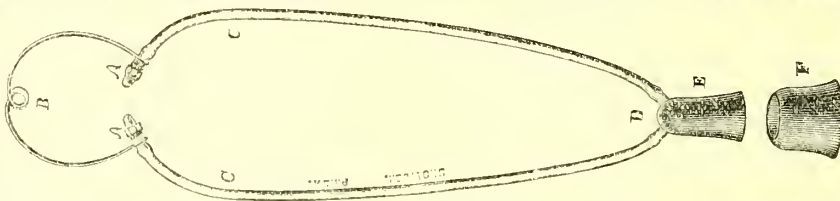
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All genuine ones have
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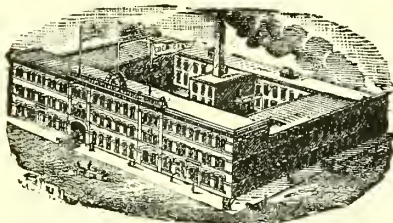
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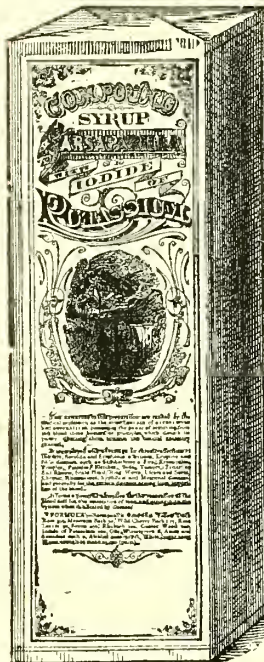
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Established 28 Years.

POPULAR NON-SECRET MEDICINES.

Under the title of Popular Non-Secret Medicines, we introduced, in 1876, a line of articles avowedly made to supplant patented and secret medicines. The list comprises staple articles like Sarsaparilla, Condition Powders, Cathartic Pills, Liniments, Cough Syrups, Worm Medicines, &c., to simulate the forms and sizes of like popular patented goods; to print the working formula on each package; to make them in large quantities, at a saving in cost of material and labour; to sell them to the RETAIL trade of the United States; to print each buyer's name and address on labels and wrappers in place of ours; to sell them on a close margin of profit as manufacturers; to use good glass, velvet corks, excellent printing, elegant engraved and tinted wrappers; to adapt the styles, sizes, and prices to meet popular wants; to furnish the retail druggist (who has few appliances himself) a means to drive patent medicines out of his sales; to enable him to make the profits himself, which otherwise go into the pockets of patent-medicine manufacturers; to replace quick and secret nostrums by medicines of known composition and value.

Illustrated Priced Catalogue and Order Blanks furnished on application of any retail druggist in good rating. Each Customer is protected from competition in his immediate neighbourhood.



This cut represents the
12-oz. size of

Compound Syrup of Sarsaparilla with Iodide of Potassium.

The medicines combined in this preparation have long been recognised by the medical profession as the most certain of alteratives and depuratives. It is useful in chronic affections of the skin, scrofula, syphilis, and all diseases arising from impurities of the blood. It contains Sarsaparilla, Senna, Licorice, Iodide of Potassium, Sassafras, Anise and Oil of Wintergreen. Formula printed on label (or not, as buyers wish). Price from one-half to two-thirds less than Patented Nostrums. The general make-up is elegant and far surpasses any hitherto put before the public.

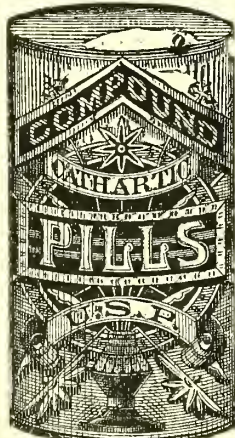
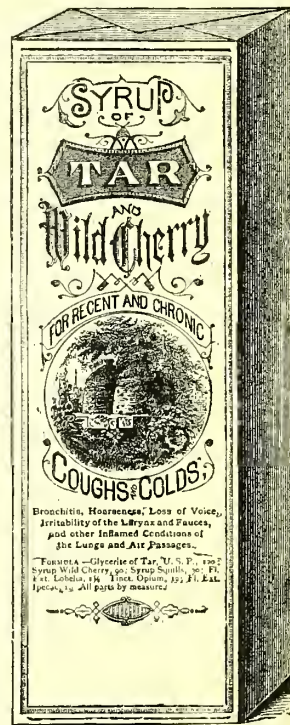
This cut shows the popular
non-secret

Syrup of Tar and Wild Cherry.

For recent or chronic Coughs and Colds, Bronchitis, Hoarseness, Loss of Voice, Irritability of the Larynx and Fauces, and other Inflamed Conditions of the Lungs and Air Passages.

PROPERTIES.—It is agreeable in taste and appearance, and Tar is diuretic and promotes secretion in the bronchial and laryngeal passages; Wild Cherry is an elegant and agreeable tonic and sedative; Squill, one of the best of expectorants; Ipecac is diaphoretic and expectorant; Opium, sedative.

STYLE AND SIZE.—Put up in three sizes, to retail for One, Two, and Four Shillings; label and buyer's address on bottle; cork left long; handsome engraved wrapper printed on heavy salmon-tinted enamelled paper; a two-page circular enclosed.



This cut represents a turned-wood box, containing 25 Sugar (or gelatine) Coated

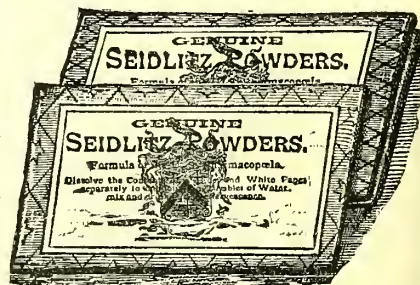
Cathartic Pills (formula, U. S. Ph.); engraved wrapper, with customers' address (not ours); each one quarter, one half, or one gross of boxes packed in Decorated Canisters. Price of the goods from one-half to two-thirds less than those of Patent or Quick Pills. Any formula, any Tin, and any Address may be had in this form.

We put up but one quality, and that the full weight of the Pharmacopoeia. We make our own Tin and Slide Paper Boxes. Our BLUE papers are dyed in the rag, and will not fade or stain. The ACIDS are wrapped in foil. Wrappers are of elegant, variously-tinted enamelled papers, engraved designs, and with buyer's address.

Directions and Uses in English, French, German, and Spanish.

ACCURATE WEIGHT.—We have for some time discarded the method of measuring the Seidlitz mixture and acid in putting up Seidlitz Powders, and in place of that we weigh every single powder, and would like to have our customers test this fact, and then weigh several of the machine-weighed powders, or those put up with measuring cups, and report the result. Ours are exactly correct: made by any other way they cannot be. These are to be had in Boxes of 12, 10, 8, and 6 Powders; also in Decorated Foil Envelopes of 1, 2, or 3 Powders.

Genuine Seidlitz Powders.



Single Powders in Decorated Foil, Boxes of 50 or 100 only.

We publish monthly an 8 page illustrated paper, "THE NEW IDEA." Send for it. Contains articles of interest to every retail druggist—the organ of the house—and is devoted to New Remedies, New Preparations, and Novelties in Pharmacy.

ADVERTISING MEANS.—We furnish Counter Circulars, Almanacs, Memorandum Books, Cook Books, Canary Bird Books (new), "Our Dogs" (new), and some other desirable means for counter advertising. These are furnished at cost to customers of our Non-Secret Remedies, and ADVERTISE THE BUYERS EXCLUSIVELY.

NEW CATALOGUE No. 80, issued April 1880, contains 72 pages, closely printed, of our manufactures (exclusive of the popular Non-Secret Preparations), as Fluid Extracts, Sugar Coated Pills, Elixirs, Powdered Drugs, Effervescent Granules, &c., &c. A book of reference. To Customers free.

NEW CATALOGUE No. 82—Illustrated Descriptive Price List of the popular Non-Secret Medicines, Toilet and Domestic Articles. It contains 90 pages, and nearly 150 engravings. Free on application.

Printed Card or Address should be sent with every Order. Send for Order Blanks.

FREDERICK STEARNS & CO., Manufacturing Pharmacists, DETROIT, MICH.
SEE OPPOSITE PAGE ALSO.

COMMON NAMES.
White Hoarhound, Præstium.
Pölistzer, Andorn.
Marrube Blane.



PROPERTIES.

Stimulant, tonic, expectorant, and diuretic. Useful in colds, asthma, and all pulmonary affections. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

ALLAIRE, WOODWARD & CO.

PEORIA,
ILLINOIS, U.S.A.,

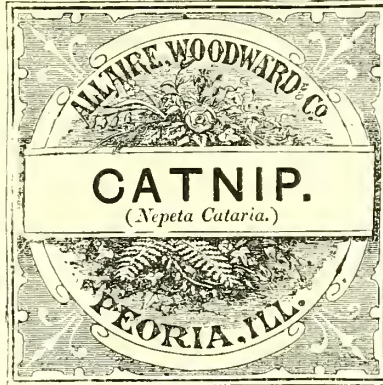
Desire to call the attention of
Chemists to their line of

SUPERIOR
Choice Pressed
Herbs,

&c., &c.

Style of Package is shown in
the accompanying Cuts.

COMMON NAMES.
Catnip, Catmint, Catwort, and Balmfield.
Katzen-Minze.
Herbe aux Chats Catuire.



PROPERTIES.

Tonic, diaphoretic, and carminative. Useful in flatulence, colic in children, and as an emmenagogue in amenorrhœa and dysmenorrhœa. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.

IMPORTANT NOTICE.

Very little attention is generally paid by druggists to this class of goods, so that frequently (in fact it has become the rule) pressers never or seldom put their names on the packages, and, as a result, a large proportion of these goods in the market are short weight, old or inferior stock, not true to name, or otherwise objectionable.

If you wish to avoid all these serious objections, and at the same time secure a much handsomer package, having on it all the common or vulgar names, also the German and French names, the medicinal properties, formulas for the infusion and dose of the same, and also, in the case of Poisons, the antidote, you can easily do it by specifying our brand (A. W. & Co.) when ordering of your jobber. In case inferior goods are substituted, we shall be pleased to receive your orders direct.

We believe it is only necessary to call the attention of the intelligent and thinking portion of the trade to these facts to secure a hearty support in our effort to supply superior goods at ordinary prices.

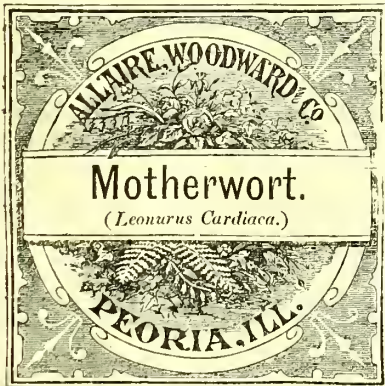
Our position as large consumers of this class of goods in the manufacture of Fluid and Solid Extracts and Sugar-coated Pills enables us to secure the best quality, gathered expressly for us, at the very lowest possible price, so that to secure better goods you do not have to pay more money, but simply exercise a little care in ordering.

Our name is on every package. Accept no other as ours.

POISONS are put up in YELLOW PAPER, and in this class are included all goods which, though not strictly poisons, should be dispensed with caution, such as Tansy, Savin, Pennyroyal, &c. Roots and barks coming under this class have a cautionary label of yellow paper pasted on the front end. All other ounce packages are put in fine blue paper. The adoption of these styles by us, we trust, will reduce very materially the chances for mistakes in dispensing.

CAUTION.—During the past year nearly every presser of botanic goods in this country has adopted our style of putting them up, under the supposition that it is the wrapper which sells the goods. We are convinced, however, that it is the superior quality of the goods furnished which has given us the largest trade by far now done by any one house, and we trust that buyers will not be deceived by these external imitations.

PROPERTIES.
Emmenagogue, nervine, antispasmodic.
Useful in hysteria, menorrhœa, &c. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.



COMMON NAMES.

Motherwort, Cardia.

Herzgesannkraut.

Agripaume.

ALLAIRE, WOODWARD & CO.,

MANUFACTURERS OF

Fluid & Solid
Extracts,

GELATINE AND SUGAR-
COATED PILLS,

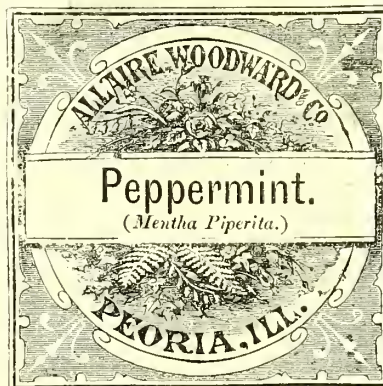
Pure Ground, Powdered, & Pressed
Botanic Goods,

PEORIA, ILLINOIS, U.S.A.

These Goods may be obtained from

BASTIN, MCGREGOR & Co., Manchester, England.
A. J. WATT & Co., Sydney, N.S.W., Australia.
W. H. H. LANE, Melbourne, Victoria, Australia.
HEMMONS, LAWS & Co., Melbourne.
A. COLE, Sydney, N.S.W.
SIMS & PARKES, Sydney, N.S.W.

PROPERTIES.
Stimulant, antispasmodic, carminative,
and stomachic. Used in colic, hysteria, and
to check nausea. Infusion, 1 oz. in a pint
of hot water. Do not boil. Dose, a wine-
glassful repeated.

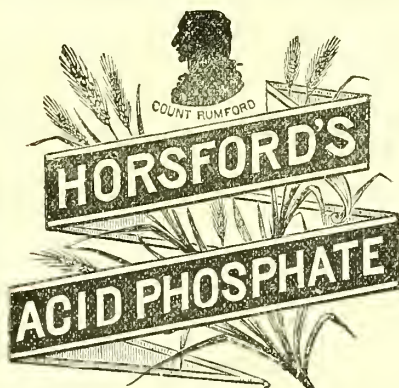


COMMON NAMES.

Peppermint.

Pfefferminze.

Menthe poivrée.



(LIQUID.)

Prepared according to the directions of Professor
E. N. Horsford, of Cambridge.

RECOMMENDED

BY

PHYSICIANS

OF ALL

SCHOOLS

For Dyspepsia, Mental and Physical Exhaustion, Nervousness, Wakefulness, Diminished Vitality, &c.

**As food for an Exhausted Brain,
In Liver and Kidney Trouble,
In Sea-sickness, Wakefulness, and Sick Headache,
In Dyspepsia, Indigestion, and Constipation,
In Inebriety, Despondency, and Cases of
Impaired Nerve Function,**

IT HAS BECOME A NECESSITY IN A LARGE NUMBER OF HOUSEHOLDS THROUGHOUT THE WORLD,

And is universally prescribed and recommended by Physicians of all schools. It is not nauseous, but agreeable to the taste. No danger can attend its use. Its action will harmonise with such stimulants as are necessary to take.

IT MAKES A DELICIOUS DRINK WITH WATER AND SUGAR ONLY.

Prices reasonable. Pamphlet giving further particulars mailed free. Manufactured by the

RUMFORD CHEMICAL WORKS, PROVIDENCE, R.I., U.S.A.

PROF. HORSFORD'S BAKING PREPARATIONS

Are made of Horsford's famous Cream Tartar Substitute, an acid phosphate in powdered form, of same strength and appearance as Cream Tartar. This Substitute restores to the flour the nutritious phosphates which are removed with the bran in the process of bolting, and its use is positively beneficial to health.

CABLE ADDRESS, "RUMFORD, PROVIDENCE."

**AMERICAN MEDICINAL
ROOTS, HERBS, BARKS, &c.,
FOR EXPORT.**

PEEK & VELSOR, NEW YORK,

ESTABLISHED 1840.

WHOLESALE BOTANIC EXPORT DRUGGISTS.

Medicinal Roots, Herbs, Barks, Seeds, Flowers, Crude, Crushed, Ground, and Powdered. All prepared under own supervision, and guaranteed strictly pure. Being the Oldest Exclusively Botanic House in America, with an experience of 40 years in testing and preparing American Botanical Products, we claim many advantages over competitors. Our reputation for serving our friends with goods of prime quality only, and at fair prices, has been long established. With this class of goods, **QUALITY** is of the first importance. Nothing is cheap if old or impure. We renew our stock every season, and will guarantee satisfaction to all who favour us with their orders. Orders should be accompanied with draft or New York reference. Quantations supplied on application.

SPECIALTIES—Peek's Asthma Cure, Peek's Liver Pills, Peek's Tincture Veratrum Viride, Peek's Syrup Sarsaparilla, Peek's Cough Syrup.

Also Roots and Barks, pressed, in one-lb. packets; and Herbs and Flowers, pressed, in 8-oz., 4-oz., and 1-oz. packets.

B. KEITH & CO.,

MANUFACTURERS OF

**PURE CONCENTRATED
MEDICINES,**

CONCENTRATED TINCTURES, ETC.

We make a full line of **RESINOIDS**, such as **PODOPHYLLIN, LEPTANDRIN, EUONYMIN, IRISIN, HYDRASTIN, &c., ALL PURE.**

So-called Concentrations are in the market, called by the same name as our manufactures, that are made by triturating extracts, etc., with sugar of milk, powdered root, etc.

WHAT ARE CONCENTRATED TINCTURES?

They are not made from the crude material, but by dissolving the active principles in Alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power.

Send for printed matter on **CON. TINCT. AVENA SATIVA** in the Morphia or Opium Habit, and certificates from different members of the Medical Profession, citing cases under their charge, treated by it; also **REVISED AND ENLARGED MANUAL**; also Price Lists, to

B. KEITH & CO.,

41 LIBERTY STREET, NEW YORK, U.S.A.

HIMROD'S CURE

FOR

ASTHMA,

HAY FEVER, CROUP, CATARRH, DIPHTHERIA & COLDS.

The attention of sufferers from Spasmodic Asthma is directed to the following
Extracts from some of the Press Memoirs of the late lamented

EARL OF BEACONSFIELD.

"An account states that the early hours of the morning had always been the most trying to the patient, and after one o'clock the difficulty of relieving the throat and chest became so great that recourse was had to an expedient which Lord Beaconsfield had before declared had given him the greatest relief, and a small quantity of Himrod's Powder was burned in a saucer in such a position that the fumes were inhaled by the sufferer."—*The "Daily News," London, Wednesday, April 20th, 1881.*

"The east winds, which have again set in, no doubt hastened the end. It seems that for the asthmatic affection his lordship derived the greatest comfort from Himrod's Powder, which was recommended to him by Sir Philip Rose. He last inhaled it at one o'clock this morning, and seemed to derive comfort from it. Nothing could be more dignified than the manner in which the noble patient bore his sufferings, and nothing more composed and tranquil than his end."—*The "Globe," London, Tuesday, April 19th, 1881.*

It is important to observe that Himrod's Cure was employed under the highest medical sanction, for the "Globe" (above quoted) further states—

"... Indeed, latterly, since his illness assumed a critical turn, he had submitted himself to the guidance of his physicians and friends, eating when he was more or less inclined to do so, and obeying the medical directions. From the very first he has been wonderfully patient and in good spirits, although conscious he could never recover, and . . ."

"From the very first he has been wonderfully patient, and in good spirits, although conscious he could never recover, whilst awaiting his death with marked fortitude. It is understood he said the only real relief he had during the paroxysms of his illness was from an American remedy (Himrod's Powder), which was freely administered during his illness, being the last medicine given him."—*The "Echo," Tuesday, April 19th, 1881.*

CAN BE OBTAINED FROM THE FOLLOWING FIRMS:—

LONDON ... **F. NEWBERRY & SONS.**

" ... **BARCLAY & SONS.**

" ... **J. M. RICHARDS.**

" ... **T. LYNCH & CO.**

LIVERPOOL ... **J. HALLAWELL & CO.**

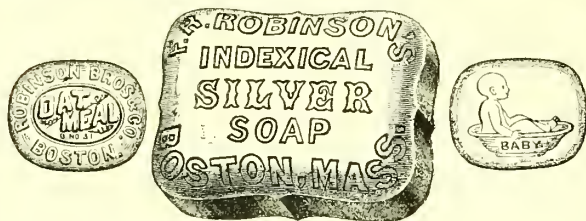
BELFAST ... **CLARK & McMULLEN.**

NELSON, NEW ZEALAND ... **R. HADFIELD.**

SYDNEY, NEW SOUTH WALES ... **WASHINGTON H. SOUL.**

OR FROM

HIMROD MANUFACTURING CO., SOLE
PROPRIETORS,
NEW YORK, U.S.A.



Established 1852.

INDEXICAL SOAP COMPANY,

MANUFACTURERS OF

SILVER, PUMICE, SHAVING, DENTAL, AND FINE TOILET SOAPS.

THE INDEXICAL SOAPS

Are prepared from the choicest materials; all are boiled soaps, with lasting odours; they are durable, economical, and always mild and wholesome.

LARGE OVAL SOAPS.

Honey, Glycerine, White Glycerine, Brown Windsor, Turtle Oil, Oatmeal Glycerine, Almond Meal, Pomeine, Zahater, Sunflower, Rice Flour, Baby, Palm Oil, Farina, Pure Almond, Bay Leaf, Musk Windsor, Tar, Sand, Pumice, &c.

GIANT SOAPS.

Honey, Glycerine, Pink Bath, Bee Bath, Oatmeal, Elder Flower. The Giants are half-pounds of the finest quality boiled and perfumed pure soap, and the cheapest toilet soaps to be obtained anywhere.

INDEXICAL SILVER SOAP.

Made expressly for cleaning and polishing Silver and Plated Ware, Gold and Plated Jewellery, Pearls and Precious Stones, Gold Chains, &c., and for cleaning Window Glass, Mirrors, Marble, Tin, &c. It is much more convenient and effective than plate powders, and may be used even by inexperienced help with perfect safety, as it contains nothing that will injure the finest plate or jewellery, or even the most delicate skin. It is far superior to any other soap for cleaning fine House Paint, Statuary, &c. Made only by

Robinson Bros & Co.

WHOLESALE AGENTS FOR EUROPE.

CROWDEN & GARROD,

Falcon House, Southwark Bridge Road, LONDON, S.E.

DRUGGISTS make 140 per cent. profit acting as agents for and selling REGISTER'S LINIMENT. The best in the world. Write for particulars to F. REGISTER, Prop'r, 324 Sth. 5th St., Phila., Pa., U.S.A. A reliable druggist wanted in each town.

EISNER & MENDELSON,

IMPORTERS AND EXPORTERS OF

FOREIGN & DOMESTIC HERBS, ROOTS, DRUGS, CHEMICALS & PATENT MEDICINES.

Consignments and Agencies solicited. Highest references furnished.
Sole Agents for the U.S. for Johann Hoff's Malt Extract.
" " " H. Trommsdorff's Chemicals.

218 & 320 RACE STREET, PHILADELPHIA, PA.

MORRISON, PLUMMER & CO.,

Importers and Wholesale Druggists,
52 & 54 LAKE STREET,
CHICAGO, ILLS., U.S.A.,
PROPRIETORS OF THE
DIPSOMANIA CURE

FOR THE
ALCOHOL AND OPIUM HABITS.

Correspondence regarding CONSIGNMENTS OF
FOREIGN PRODUCTS solicited.

Reference by permission—FIRST NATIONAL BANK, CHICAGO.

REQUA & WETMORE,

130 FULTON STREET, NEW YORK, U.S.A.,
MANUFACTURERS OF
DRUGGIST 10-CENT SPECIALTIES.

New Goods constantly being added to our line.

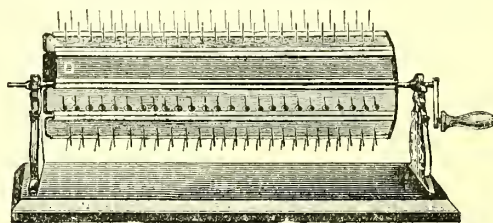
Our Illustrated Price List sent on application to all
reliable Druggists.

*Our Specialties to be had of all Wholesale Druggists'
Sundriesmen throughout the world.*

We desire an Agency in Great Britain; also Agencies
and Correspondence solicited.

"THE PORCUPINE" Gelatine Pill Coating Machine,

Patented by CHAS. C. WELLS, Chemist, Saratoga Springs,
New York, U.S.A.



A.—Needle Bars.

D.—Drying Cylinder.

The object of this invention is to provide a New and Improved Machine for facilitating the coating of pills, thereby enabling the RETAIL CHEMIST to coat pills of his own make conveniently, economically, and expeditiously, and enjoying the satisfaction of knowing what a pill is made of, by whom made, and when made. Naturally the first question arising in the mind of the RETAIL CHEMIST is: *Will it pay me to make and coat my own pills?*

Any CHEMIST taking the trouble to compare the actual cost of pills not coated with any price list of Gelatine Coated Pills in the market will be surprised at the margin between the two, and fully convinced that a machine ENABLING HIM TO POCKET THIS MARGIN will soon pay for itself over and over again.

"THE PORCUPINE" is not a complicated machine, but easily understood, and managed by the youngest Clerk equally as well as by the experienced Chemist. It can be used for years without a penny's expense—extra needles excepted, which can be replaced at a trifling expense. It is the best, most rapid, and practical machine ever invented with which to gelatine coat pills.

No. 2 "PORCUPINE" MACHINE holds 250 Needles.
No. 8 " " " " " 500 " "

Printed Directions for using the Machine, also an elegant Formula seldom equalled, never excelled, for making Gelatine Solution, goes with each Machine

Write for Descriptive Circular and Testimonials received from
the best Chemists throughout the United States.

Having used this Machine in my own Pharmacy for years, I take great pleasure in being able "to vouch for it" from personal experience.

CHARLES C. WELLS, CHEMIST,
SARATOGA SPRINGS, N.Y., U.S.A.

1830

BAKER'S EMULSION OF COD LIVER OIL.

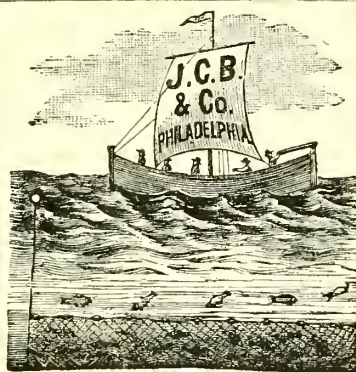
1883

A POTENT and PALATABLE
REMEDY for Consumption
and all wasting diseases is offered
in

BAKER'S EMULSION

of finest Norwegian Cod Liver Oil,
combined in an elegant form with
Hypophosphites of Lime and Soda.

No preparation has ever met
such a universal recognition by the



Medical fraternity, and its use is be-
coming constantly more extensive.

The superiority of

BAKER'S EMULSION

is acknowledged wherever known;
and medical men would do well to
avail themselves of the opportunity
to test its merits, which can be done
by procuring a bottle from the
London Agents:

BARCLAY & SONS, 95 Farringdon Street,

who are also prepared to furnish samples to Physicians free on application.

✉ CORRESPONDENCE SOLICITED.

JOHN C. BAKER & CO., Philadelphia, U.S.A.

BARCLAY & SONS are also Agents in Great Britain for

BARLETT'S PILE SUPPOSITORIES

an astringent and balsam combined in most convenient form for application directly to the seat of the disease, affording almost immediate relief, and performing the most astonishing cures. Boxes containing 14 Suppositories sent by mail on receipt of 4/6; to Chemists or Physicians, 3/6. **JNO. C. BAKER & CO., Proprietors, Philadelphia.**

LICORICE.

Our Licorice is made in the most careful and scientific manner from sound Italian and Spanish Root, is handsome in appearance, of finest flavour, beautiful fracture, and entirely free from grittiness. The sizes are 4, 6, 8, 12, 14, and 16 sticks to the lb. (all sizes same price per lb.), put up in 5-lb. wooden boxes, actual weight guaranteed. Samples and Prices upon application. CORRESPONDENCE WITH JOBBING HOUSES SOLICITED.

We have received the following Awards:

Franklin Institute, Philadelphia, Exhibition of 1874, "for purity"; Centennial Exhibition, Philadelphia, 1876, "for purity and general excellence of manufacture"; Paris Exposition, 1878, "for general excellence."

MELLOR & RITTENHOUSE

MANUFACTURERS OF LICORICE,

218 & 220 NORTH 22nd STREET, PHILADELPHIA, U.S.A.



PLANTEN'S CAPSULES.

ESTABLISHED 1836.

H. PLANTEN & SON,

224 WILLIAM STREET, NEW YORK.

SOFT AND HARD. (9 Sizes.) ALL KINDS FILLED.

EMPTY (8 Sizes) For taking medicine free of taste, smell,
injury to teeth, mouth, or throat.

RECTAL, 3 Sizes.

HORSE, 5 Sizes.

VAGINAL, 4 Sizes.

DOG WORM.

CAPSULES FOR MECHANICAL PURPOSES.

Special Recipes Capsuled.

New kinds constantly added.

✉ Sold by all Druggists. SAMPLES FREE.



THE ORIGINAL

"ELIXIR OF CALISAYA BARK"

Introduced to the Medical Profession by J. MILHAU, in 1830, has maintained for 53 years a reputation as a palatable and efficient febrifuge, general tonic, and appetiser, never attained by any other preparation of the kind. Dose, 5iv. to 3vj.

J. MILHAU'S SON,

PHARMACEUTIST, DRUGGIST, AND IMPORTER,

183 BROADWAY, NEW YORK.

[J. Milkau, Founder, 1813.]

HALL & RUCKEL'S HOLLOW SUPPOSITORIES,

With Stoppers (Patent Turned). All made from Pure Butter of Cocoa.

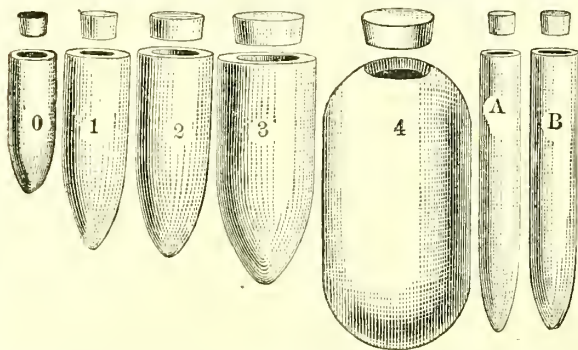
The object of this invention is to supply Druggists and Physicians with HOLLOW SUPPOSITORIES, into which they can put MEDICINE or NUTRIMENT, thus preparing them for use in a few minutes.

The rectum not only absorbs more rapidly than other mucous membranes, but it has considerable digestive power, so that some medicines act more promptly *via rectum* than by the mouth. Life may be indefinitely sustained by means of concentrated foods introduced into the system through this avenue. Physicians have, heretofore, been unable to employ, satisfactorily, this invaluable method of medication and nutrition, because of the difficulty of obtaining suppositories that are evenly medicated.

If the medicine is *lighter* than the butter of cocoa, it rises to the surface, and most of it goes into the first moulds that are filled. If the medicine is *heavier*, as *calomel*, it sinks, and, not unfrequently, most of it may be found in the last suppository that is poured, and thus some of them are hardly medicated at all, while others may be dangerous because of the *excess* of medicine they contain; though the medication be even, the suppositories are usually rough and crumbly and easily break in pieces; or produce anal irritation when being inserted; moreover, nutritive substances, as *bee extract*, etc., cannot be incorporated in the ordinary suppositories. The employment of our "HOLLOW SUPPOSITORIES" overcomes all these difficulties, as the required quantity of medicine or nutriment can be put directly into each "HOLLOW SUPPOSITORY" and sealed up, and then it is ready for use. Medicines may be triturated in a mortar with a little butter of cocoa, or made into a mass and divided into equal parts and put in the "HOLLOW SUPPOSITORIES," or, if liquid, poured in. All fillings must be put in cold.

Our "HOLLOW SUPPOSITORIES" are made of the various shapes and sizes required for the introduction of remedies into the open passages of the body.

Exact sizes of our various Hollow Suppositories.



Size 0, is for children. It also may be used for the EAR, and in the NASAL PASSAGES. Nos. 1, 2, and 3 are RECTAL SUPPOSITORIES. Nos. 3 and 4 may be used for introducing nutriment into the system, *via rectum*. No. 4 is also a VAGINAL Suppository. A and B are used for medicating any part of the URETHRA or UTERINE CAVITY or NASAL PASSAGES.

"REST TO THE STOMACH,"

says Mr. Theodore Williams [in the London *Lancet*, Oct. 24, 1874], "is of the highest importance in some of the diseases of this organ. In such cases, we possess in the rectum an effective second stomach, which, if it does not afford us the pleasure of digestion, spares us many of its pains."

Nutritious substances are taken up by the absorbers, and thus soon find their way into the economy, and produce their assimilative and nutritive effect. Haller demonstrated the fact that digestion can and does take place in the alimentary canal. He had the greatest confidence in the absorptive and digestive powers of the rectum to sustain life indefinitely.

In Boxes containing 100 each ... } No. 0, 5/-; No. 1, 5/6; No. 2, 6/6; No. 3, 7/6; No. 4, 10/-; No. A, 7/-; No. B, 8/-

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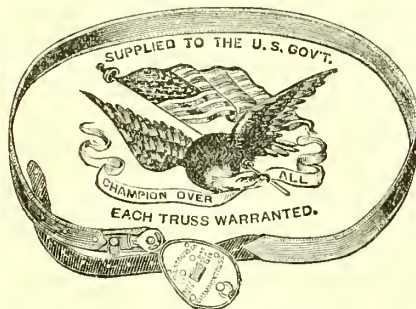
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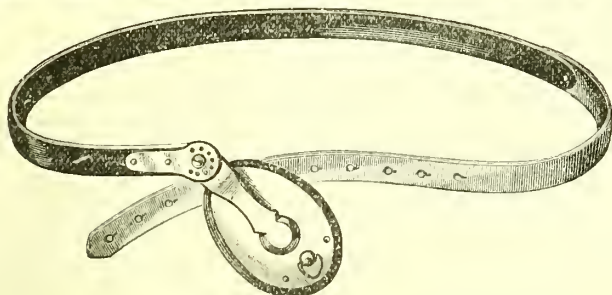
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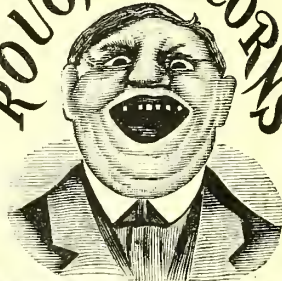
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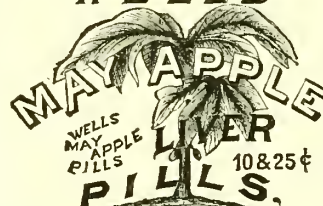
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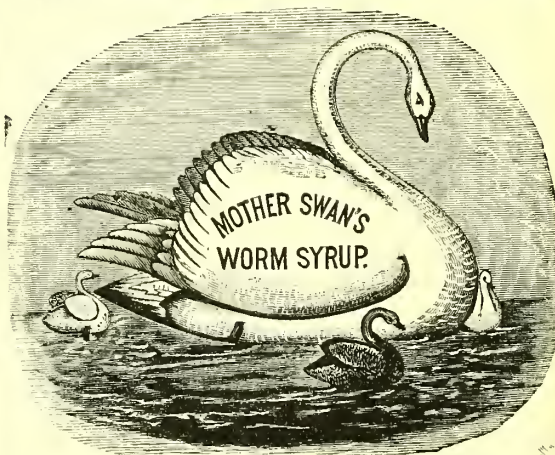
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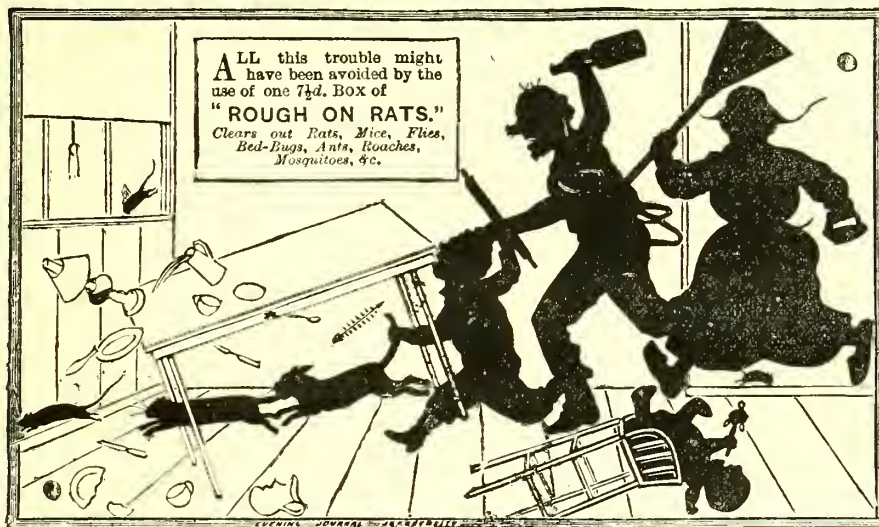
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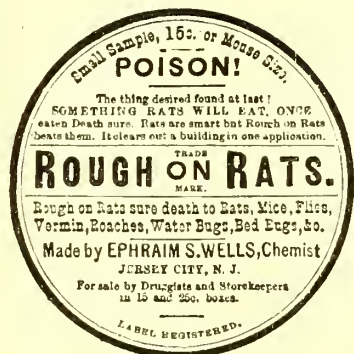


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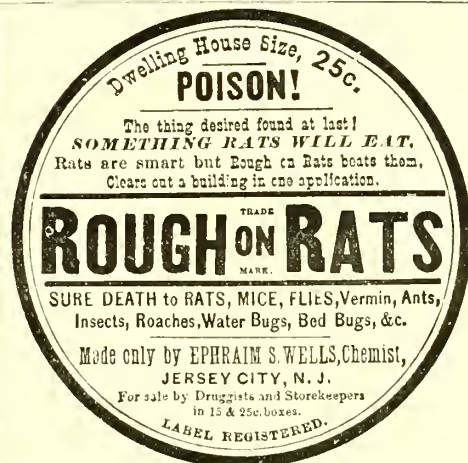


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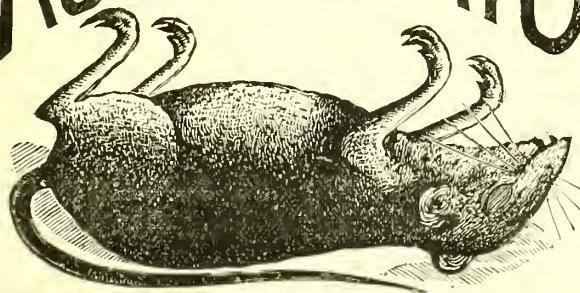
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Always does the work.
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In Artificial Crystals. Perfectly Soluble in Water without Acid.

THIS PEPSIN, now so popular with the profession, has given an impetus to the consumption of this drug. Physicians of the highest standing, who before the introduction of this active Pepsin, with good reason, entirely abandoned the use of Pepsin, are now the most eager in prescribing JENSEN'S CRYSTAL PEPSIN, whenever it is indicated.

Three grains of this PEPSIN, which, according to its authoritatively tested strength, will dissolve the hard-boiled white of six eggs, equal to the pure food of a hearty meal. Price, \$1 75c. per ounce.

EDS. MED. & SURG. REPORTER:—

I have this day tested a specimen of Dr. Jensen's so-called "Crystal Pepsin," with the following results, which may be of interest to your readers:

Experiment 1.—One quarter of a grain of Jensen's Pepsin dissolved in f. 3 iss. of water mixed with f. 5 ij. of water containing 9 drops of hydrochloric acid, and kept at a heat varying from 100° to 110° F., dissolved 125 grains of hard-boiled white of egg in two hours.

Experiment 2 was an exact copy of the first, except that solution was effected in two and a quarter hours.

Experiment 3.—One-quarter of a grain of the same Pepsin, under like conditions, dissolved 150 grains, or 600 times its weight, of coagulated albumen, in about three hours—this amount of albumen being rather more than half that usually found in an egg of average size.

Experiment 4.—One-quarter of a grain of the Pepsin similarly tested with 200 grains of boiled white of egg, left a small residue (estimated to weigh 20 or 25 grains) at the end of three and a half hours, when the experiment was interrupted. It was therefore probably capable under these circumstances of dissolving at least 700 times its own weight of freshly-crystallized albumen.

The solvent power of this Pepsin is thus shown in these investigations of mine to be not less than twelve times as great as that of the "Pepsinum Saccharatum" (U.S. Pharm., 1880), and hence this method of preparing pepsin unquestionably places within the reach of physicians a vastly improved means for aiding the stomach digestion of nitrogenous foods.

JOS. G. RICHARDSON, M.D., Prof. of Hygiene in the University of Pennsylvania.

Philadelphia, May 16, 1883.

Jensen's Pepsin in Diphtheria.

Dr. Edwin Rosenthal, acting on the suggestion of Dr. L. Wolff, has used an acidulated concentrated solution of Pepsin, as an application to the membranes of diphtheritic patients, for which there seemed to be no other help than tracheotomy, and reports that it acted like a charm, dissolving the membranes, admitting a free aeration of the blood, and placing them soon on the road to convalescence. The solution he used was—

R Jensen's Pepsin 3j.
Acidi hydrochloric, C. P. gtt. xx.
Aque q. s. ft. fl 3 j.

M. S. Apply copiously every hour with a throat mop.—*From the Med. Bulletin, Philadelphia.*

Dr. Jensen's Pepsin as a Solvent in Albuminous Obstruction of the Bladder.

Dr. Hollmann, [*Nederl. Weekbl.*, 18, p. 272] reports the case of an old man aged 80, suffering from retention of urine, in whom the introduction of a catheter failed to produce the desired result. It was found that the bladder contained coagulated albuminoid masses mixed with blood. A few hours after the injection of about sixteen grains of Dr. Jensen's Pepsin, dissolved in water, a large amount of a dark, viscid fetid fluid readily escaped by the catheter.—*Lond. Med. Record.*

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In Transparent Glassy Scales.

One ounce represents one pound of beef, less fat and a small portion of earthy matter, which precipitates after the process of digestion is entirely completed, thus presenting a true and highly azotized nutrient in the most concentrated form possible. This is the first Beef Peptone ever offered to the profession in a strictly completed and unmixed state, and will stand the most severely scientific test as to perfectness. For rectal as well as oral administration it offers to medicine a *new agent* by which to overcome asthenic inanition, and thus combat one of the worst features of acute as well as chronic diseases.

JENSEN'S BEEF PEPTONE WITH ROCK CANDY.

Also in Transparent Glassy Scales, but a trifle Larger.

Devised to overcome the long-felt difficulty in feeding sick children who object to food in any hitherto known form, but never refuse candy. They will, to the gratification of all interested, feed themselves with this sweet Peptone, and ask for more. One ounce of this Peptone represents one-half pound of beef.

Both of these Peptones are put up in bottles holding one ounce, eight ounces, and one pound, retailed at 65 cents per ounce.

The above preparations are only manufactured and put up exclusively as specialties by

DR. CARL L. JENSEN,

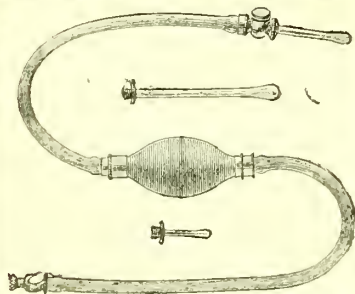
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With the DAVIDSON Syringes, absolute perfection in the purity of stock, and skill of construction, are the objects aimed for, so that by their great durability they are much cheaper to use than any others.

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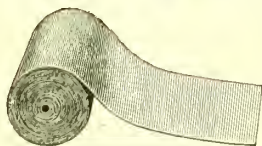
The trade never have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, worthless Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

We have recently added a patent improvement to the Syringe in making the metal on the suction end of the tubing in the shape of a hook, so that the instrument can be hung up after use, and all the fluid allowed to drain out, which adds greatly to the durability of the Instrument.

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DAVIDSON'S
60 FEET



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LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made 60 feet long in four widths (1½, 2, 2½, and 3 inches), so that any length or width desired can be cut off, and it relieves the Druggists from the necessity of carrying in stock a line of Bandages of various lengths.

Many objections are found with Bandages that are made with tapes on the end, as the tapes, being non-elastic, bind the limb so rigidly as to stop or impede the circulation.

With Davidson Bandages these objections are entirely removed, as they are secured in place by using diaper or safety pins, so that no part of the limb is bound by non-elastic material.

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2/6.. Ditto	..13/	2/3.. " Iron	..15/	1/9.. " Regnaud	..13/	4/6..Valentine's Meat Juice	..38/
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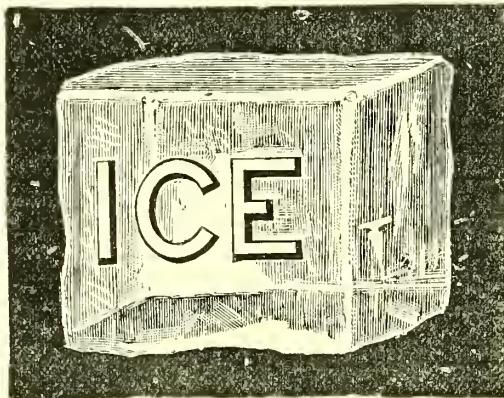
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MANUFACTURING CHEMISTS,

STIRLING CHEMICAL WORKS,
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LONESOME CHEMICAL WORKS, STREATHAM COMMON, S.W.,

Makers of all the Hypophosphites; also of Valerianic Acid and all Valerianates, Bisulphide of Carbon, Chloride of Sulphur, Chlorate of Baryta, and Chemicals for Pyrotechnical and all other purposes.

All Coal Tar Products for the Manufacture of Aniline Dyes.

Refiners of Sulphur in Rock or Roll, Ground Sulphur, Washed Sulphur, Milk of Sulphur, Precipitated Sulphur. Guaranteed Pure.

[ESTABLISHED 1852.]

SAMPLES AND QUOTATIONS ON APPLICATION.

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NEWTON, KEATES & CO.,

28 King Street, and 3 Cooper's Row, Liverpool,

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PHOSPHATE OF SODA,

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Also Chemical Manure Manufacturers.

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MORPHIÆ HYDROCHLOR.

In powder and crystals.

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Introduced by them and specially prepared
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Their brand has been for many years known to
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TWO SPECIAL FIRST AWARDS, SYDNEY EXHIBITION, 1879-1880.
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White and Unbleached, and all other important Salts of Quinine; as also of
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QUINETUM. The Alkaloids of India Cinchona Succirubra Bark.

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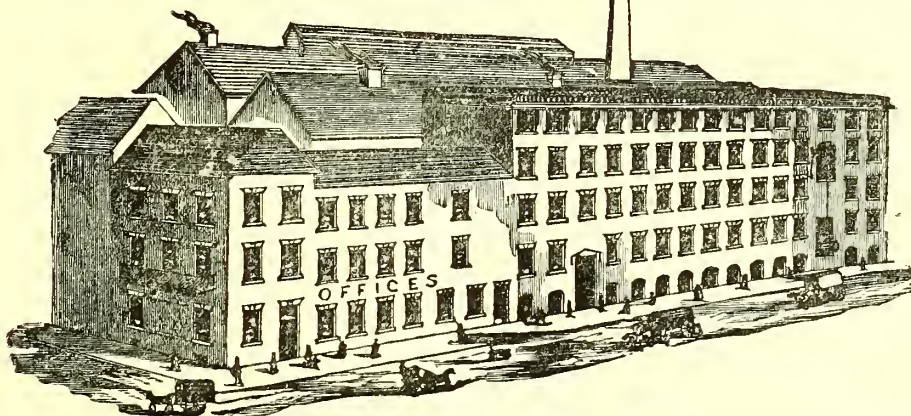
SALICINE. The active principle of Willow Bark.

STRYCHNINE (HULLE'S).

The Advertiser is the PROPRIETOR and INVENTOR of this well-known Brand.

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ESTABLISHED 1790.
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CHEMICALS & PHARMACEUTICAL PREPARATIONS

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CHINOQUININE.

The bleached crystallizable alkaloids of East India Red Bark (*Cinchona succirubra*), now recognised by the Trade and the Profession as the *best substitute for Quinine*. May be used in all cases in which the use of the Cinchona alkaloids is considered desirable. 1-oz. sample bottles, price 5s. 6d., enclosed to any London House.

FERRI ET CHINOQUINÆ CITRAS.

A "scale" Preparation, corresponding in appearance, dose, and medicinal properties to Ferri et Quinæ Citras, P.B. (costing 25 per cent. less), containing the advantages provided by Chinoquinine, of which it contains 25 per cent. in the form of Citrate.

LIQUOR FERRI ET CHINOQUINÆ CITRAS.

Is a very pleasant and palatable Preparation of the above in a liquid form, prepared for convenience in Dispensing. Each fluid drachm contains ten grains of Citrate of Iron and Chinoquinine.

EXTRACT OF MALT AND ALL ITS COMBINATIONS.

A Pure Extract of Malt, free from Glucose or added Sugar, containing, in an unchanged condition, all the natural digestive principles of Malted Grain. In Bottles, 12s. and 22s. per dozen.

OLEUM MORRHUÆ ET CALC. HYPOPHOS.

We were the earliest makers of this Preparation, which is a flavoured emulsion in which the taste of the oil is entirely disguised. Each tablespoonful contains two teaspoonfuls of Cod Liver Oil and two grains of Hypophosphite of Lime. It is flavoured either with Almond, Cinnamon, or Wintergreen.

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The Chilian Plant (*Myrtus Chekan*), of which we were the first importers, has been strongly recommended by Dr. Murrell and Dr. J. Stretch Dowse, as a most useful remedy for all diseases of the Bronchial Tubes, Winter Cough, &c.

Extr. Chekan Liquid, containing in each fluid ounce the medicinal properties of one ounce of the drug. Dose: from 1 to 3 fluid drachms three or four times a day.

Ol. Chekan Essent. To be used for Inhalation in cases of Diphtheria, Laryngitis, &c., in the ordinary way.

Syr. Chekan is half the strength of the Liquid Extract, and is specially recommended for children. Dose, according to age, from 30 to 60 minims.

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We are now making on a large scale, and shall be pleased to forward List containing Recipes for every description of these, or to prepare special forms from customers' recipes.

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Messrs. W. & Co. are prepared to execute orders for Export, giving every attention to packing and the requirements of the Market for which goods are intended.

Having *direct representatives* in Canada, Rio Janeiro, and Valparaiso, they are in specially good position with reference to the North and South American Continents.

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Messrs. W. & Co. will be happy to forward English and Spanish Price Lists, Book of Order Forms, and Pill List, to any Chemist in the World on receipt of Business Card.

Trade Notice.]



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ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

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The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses, at 24s. and 108s. per dozen, less the usual discount.

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Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.

CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.

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SPECIALITIES

Hypophosphorous Acid and Hypophosphites of Ammonia, Baryta, Iron, Lime, Manganese, Potash, Soda.

Valerianic Acid and all Valerianates, Sulphate of Zinc (Pure Crystals), Sub-Oxide of Copper (fine red shade), Blue Verditer, Chemicals for Pyrotechnical, Indiarubber, and all other purposes.

Golden Sulphuret of Antimony, Medicinal and for Indiarubber.

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Possesses the following ADVANTAGES over the Adhesive Plaister in general use:—

1. It is always soft and pliable.
2. It will not irritate the skin.
3. It will adhere to a fresh-bleeding wound.
4. It does not contain resin or turpentine.
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Price 10d. per rouleau of one metre. A liberal discount on taking 25 rouleaux. A sample rouleau on receipt of 12 stamps.

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WHITE & LANSDALE, successors to

E. GOULD & SON,

20 BISHOP'S ROAD,
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ESTABLISHED 1863.

(Mr. WHITE many years Manager to Messrs. E. GOULD & SON at above address.)

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TIKHEEL.

Six-ounce Bottles, one size only, Half-a-crown. Price 24s. dozen, subject to usual Patent Medicine Discount.

THE NEW REMEDY FOR NEURALGIA, TOOTHACHE, NERVOUS AND SICK HEADACHE.

Prepared only by

CLARKE, BLEASDALE, BELL & CO., YORK, ENGLAND,

And sold by all Wholesale Druggists and Patent Medicine Vendors everywhere.

Price per gross, £11 8s., box free, cash with order, carriage paid. Export cases charged 5s. each, delivered f.o.b.

Remittance in full must accompany orders. For less quantity than 1 gross buyers will please write their Patent Medicine House or Wholesale Druggist.

SPECIAL QUOTATIONS FOR PARCELS OF FIVE GROSS AND TWENTY GROSS.

ONE DOSE of Tikheel will in fifteen minutes generally remove the most severe form of Neuralgia, one bottle will effect a cure.

Tikheel is a SAFE MEDICINE, thus differing from most advertised remedies.

The word "Tikheel" is stamped on every bottle, the label is pale buff colour, with the Trade Mark (the back of a watch) in pale yellow underlying the printed matter. Any infringements of label or imitations of the word "Tikheel" will be rigorously proceeded against, being protected by the Trade Mark Act, &c.

The Proprietors respectfully request perusal of the following genuine Testimonials, being a selection out of a very large number which are daily received:—

The Rev. A. ORLANDO CHERRINGTON, Vicar of Tividale, Tipton, writes, March 27, 1883.

Gentlemen,—Your valuable preparation "Tikheel" has been effectual in curing three cases of Neuralgia in my parish, one of two years' standing, in which extraction of teeth, &c., had no effect, various other remedies had been tried in vain; another of a very excruciating nature; and my own, which has been of frequent occurrence for some time.

From Mr. THOMAS CROSS,

The School, Poppleton, York.

Dear Sirs,—I have suffered a long time from Neuralgia, which periodically attacks a decayed tooth. Lately I have tried "Tikheel," which, after the third dose, entirely removed the pain, and now at an interval of two months I have only had one very slight attack. I have found local applications of no use whatever in the past, and remain, yours faithfully,

To Messrs. Bleasdale & Co., Chemists, York.

THOS. CROSS.

The Editor of the "WHARFEDALE AND AIREDALE OBSERVER" sends the following unsolicited:—

Gentlemen,—Your "Tikheel" is indeed a most remarkable medicine. I am not one who places much faith in the efficacy of the numerous so-called remedies for Neuralgia, and I was therefore not very sanguine of getting relief from your "Tikheel," but having suffered severely for several weeks past from Neuralgia, I was induced to make a trial of the medicine. In a quarter of an hour after taking the first dose the excruciating pain abated and I have had no return of it since. I am certain this medicine only requires to be generally known in order to be widely used and appreciated.

From Mr. Councillor RAWLING, York.

5 Swinegate, York, July 17, 1882.

Gentlemen,—I have great pleasure in giving testimony to the great benefit to be derived from your "Tikheel." I was very bad with Tic, but a dose of "Tikheel" cured me in half-an-hour. I cannot speak too highly of it.—Yours truly,

FRANCIS RAWLING (Town Councillor).

From Mr. CHAS. HAIGH, Skep Maker, Buresfield Road, Huddersfield.

Gentlemen,—My wife having been a very great sufferer for some time from Tic and Neuralgia, and having tried a good many medicines without receiving any benefit, was induced by Mr. Bygott, Chemist, to try a bottle of "Tikheel." Strange to say, after taking three doses of the medicine she was completely cured, and has not had the least pain since.

You are at liberty to make any use of this testimonial you think proper, as I think every one should know there is such a certain and rapid cure for Neuralgia.

From Mr. THOS. HORROCKS, Temperance Lecturer, Darwen.

10 Melita Terrace, Darwen, February 1, 1883.

Gentlemen,—My daughter has been troubled very much with Neuralgia for the last six months, and having seen your advertisement in the paper, I purchased a bottle of your "Tikheel." I am glad to say the first dose gave her immediate relief, and after taking one small bottle, she was completely cured, and has not had an attack since.—Believe me, Gentlemen, yours gratefully,

THOS. HORROCKS, Temperance Lecturer,

Western Temperance League.

Messrs. Clarke, Bleasdale, Bell & Co., York.

ERTAIN CURE FOR DEAFNESS.

of this valuable "Specific" hundreds have been cured of this distressing malady. For Cold in the Head with
 es in the Ear, it is most efficacious. The highest testimonials are enclosed, with directions for use with each bottle.

**OSBORNE'S
GOLDEN DROPS**



**OSBORNE'S
GOLDEN DROPS**

FOR DEAFNESS.

The highest Testimonials are enclosed, with directions for use with each bottle.

Extract from "Brief."—"GOLDEN DROPS FOR DEAFNESS.—E. M. Osborne has produced a valuable specific for this distressing complaint. We have tested its efficacy, and can, with confidence, recommend it to the public as an excellent remedy. It is perfectly harmless, and the directions for use are plain and simple. It is secured by a registered trade mark, 'Human Ear,' by which the genuine article may be recognised."

TESTIMONIALS.

"EDGBASTON, MAY 4, 1877.—Sir,—My niece, who came to stay at my house, was suffering from Deafness and difficulty of breathing, owing to weakness of the tonsils caused by Quinsy. She tried your wonderful 'Specific,' and after applying it a little more than a week her hearing and breathing were quite restored. I am glad to communicate this as the medium of personal thanks and for the good of others,—Yours truly, C. L."

"CLAPHAM, SEPT. 5, 1877.—Sir,—Be so good as to send me six bottles of your 'Cure for Deafness,' and you will oblige. I am much better. Shall I go on with it? Be so good as to let me know. It has done me more good than physicians to whom I have paid twenty guineas; they cannot do me any good.—Yours, &c., J. P."

"CRYSTAL PALACE ROAD, EAST DULWICH, JUNE 10, 1878.—Sir,—During the last few weeks my little girl has been quite deaf, and suffering considerable pain in her left ear. I was recommended to use your 'Golden Drops for Deafness,' and I am delighted to say that, after applying them three times, they brought away two large secretions of foul matter. The child can now hear distinctly the faintest sounds, and is free from pain. I send you this testimonial unasked, in the hope that its publication may increase the sale of your truly valuable 'Golden Drops.'—Yours respectfully, I. H. S. N.B.—If you will send me some testimonial sheets I will distribute them amongst my friends."

Sold by all Wholesale and Retail Chemists, price 1s. 1½d., 2s., 2s. 9d., and 5s. 6d.; or free by post for 1½d. extra from

E. M. OSBORNE, 5 THAVIES INN, HOLBORN CIRCUS, LONDON.

Wholesale and Export Agents—EVANS, SONS & CO. London; and EVANS, LESCHER & WEBB, London.

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d., 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs. 11s., stamped.

LIQ. CHLORODYNII,

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

4 ozs., 4s.; ½ lb., 5s. 6d.; 1 lb., 10s.

**TOWLE'S CHLORODYNE LOZENGES
AND JUJUBES,**

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes. Foiled, Lined and neatly got up for the counter, 4s. 6d. and 9s. per doz.

**A. P. TOWLE, Chlorodyne Manufacturer,
75 BACK PICCADILLY, MANCHESTER.**

Bills with name on application with instructions for forwarding.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,

MANUFACTURERS OF

SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

ACID, CARBOLIC or Phenol Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
ACID, GALLIC	Almost white needles	Freely and entirely soluble in alcohol or water.
„ PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
„ SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
„ TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
„ „	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELLOIDINE (Patent)	Gelatine plates	Purest Pyroxylin; inexplusive.
CHLORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CHLOROFORM (ex Liebreich's Chloral)	Schering's original label	Free from foreign chlorides. Will leave no odour on evaporation.
CROTON CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE	Resublimed, fine scales	Purest.
IODOFORM	Dry yellow scales	Purest, by medical reports.
POTASS BROMIDE	Fine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
„ CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
„ CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
„ PERMANGANATE	Large and small crystals	Chemically pure.
„ IODIDE	Fine white dry regular crystals	Apply Barytic and other tests. This will never change colour.
SILVER, NITRATE	Fine large crystals	63 to 63½% pure silver.
SODA, CAUSTIC	Lump and stick, white	Chemically pure, and pure by alcohol.
SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine,

MANUFACTURER OF

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PEPSIN PORCI (100%)	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

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PURE CHINOLINE AND ITS SALTS,

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ARTIFICIAL QUININE SUBSTITUTE.

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DR. LALOR'S PHOSPHODYNE,

(TRADE MARK—PHOSPHODYNE.)

TWENTY YEARS' SUCCESSFUL PUBLIC TEST, and THOUSANDS OF TESTIMONIALS from all parts of the World, establish

PHOSPHODYNE

The only Safe, Prompt, Reliable, and Never-failing Phosphoric Remedy for Over-worked Brain, Sleeplessness, Harassing Dreams, Hurry, Worry, and Waste, Anxiety, Excitement of the Higher Nervous Centres, Wasting Diseases, Nervous Prostration, Stomach, Liver, and Kidney Complaints, Impure and Impoverished Blood, Premature Decay, and all morbid conditions of the system dependent upon the deficiency of the Vital Forces.

DR. LALOR'S PHOSPHODYNE

Will keep in any Climate, and is therefore specially adapted for SHIPPING, and wherever introduced COMMANDS A LARGE SALE. DR. LALOR'S PHOSPHODYNE, from its immediate effects in cases of Exhaustion, Lassitude, Want of Stamina, Nervous Debility, and Malarial Diseases, HAS ATTAINED A VERY LARGE SALE in Africa, China, East and West Indies, the Colonies, Turkey, Asia, and other Hot Climates.

Sold in Bottles, at 4s. 6d. and 11s., by all Wholesale and Retail Medicine Vendors throughout the World. Manufactured only at the

PHOSPHODYNE LABORATORY,

By DR. R. D. LALOR, London, N.W. (The sole Proprietor and Originator of Phosphodyne.)

A supply of suitable Printed Matter in any Language for distribution, also attractive Show Cards, will be sent for Enclosure to any London House on receipt of a Letter of Advice from Agents.

DUNCAN, FLOCKHART & CO.,

WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

CHLOROFORM

Prepared from Pure and Methylated Spirit.

Put up in all size of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached), and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

CHLORIC ETHER.

SP. AMMON. AROMAT. | SP. ÆTHER. NITROS. | SYR. FERRI PHOS. CO. (PARRISH).
Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

MANUFACTURERS OF THE CELEBRATED

BLUE BLACK WRITING INK & COPYING INK.

SHIPPERS SUPPLIED ON LIBERAL TERMS.

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS,
BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverpool
Bourne & Taylor,	"	Grinoley & Son,	Chester	Raines & Co.,	York
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinburgh
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams,	"	Sanger, J., & Sons,	London
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dobbin, W., & Co.,	Belfast	Hunt, A., & Co.,	"	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	"	Lynch & Co.,	"	Treacher, Hodgkinson & Co.,	"
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westrup, J. B.,	Kensington
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Evans,	London	Maw & Son,	"	Woolley, James,	Manchester
Ferris & Co.,	Bristol	Meggeson & Co.,	"	Wyleys & Brown,	Coventry
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ONLY GENUINE.

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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33 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

Original Plaster Works.

ESTABLISHED OVER 60 YEARS.

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Of all kinds (Best Quality) for HOME and EXPORT. PATENT

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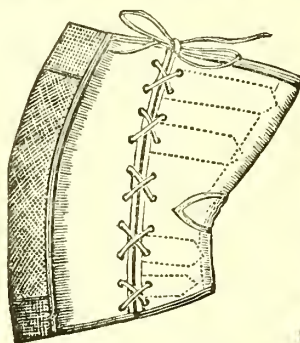
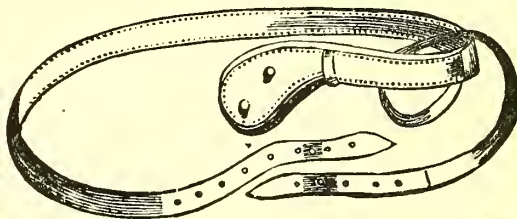
Order "St. Dalmas's" through Wholesale Houses. Prices on application.

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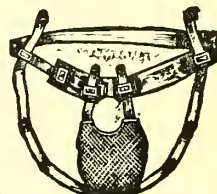
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Is the best preventive and cure of Bronchitis, Asthma, Winter Cough, Tight Breathing, and all Throat Complaints. 1s. 1½d. & 2s. 9d.

Mr. J. D. Fisher, Chemist, Blackpool, in ordering another supply says—"I have tried it myself, and have received great benefit from it. My customers speak highly of its virtues. Have sold the last, so be prompt, please."

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CHEST-EXPANDING
BRACES.MAGNETIC APPLIANCES,
KNEE CAPS, BELTS, &c.ELASTIC
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Greatest attention paid to Special
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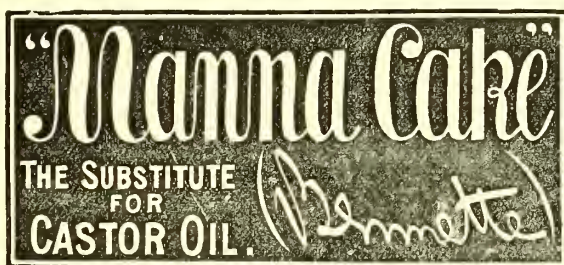
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COMMON PRINCIPLE TRUSSES, Basil and Chamois	..	£9 16 0	SALMON & ODY'S EXPIRED PATENT, Single, White or Red Roan	..	£1 7 0
Ditto Mole Lined	.. 18s. and	1 0 0	Ditto Calf and Silk sewn	..	1 10 0
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SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imper-			COLE'S EXPIRED PATENT TRUSSES, Single, covered best Doeskin	4s/ and	3 0 0
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Plain, Single	..	1 12 0	MOC-MAIN TRUSSES, Plain, Stuffed real Moc-Main—		
Best Covered, Single	..	2 5 0	as White's, £3 12s. Double	7 4 0	
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Best Covered, Double	..	2 16 0	as White's, £5 8s. Double	10 16 0	
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LINDSEY & SONS' Trusses have long maintained a high reputation for quality, and they will be happy to send their full descriptive price list on receipt of address, post free.

Customers are requested to order specially LINDSEY & SONS' TRUSSES, either direct or through any Wholesale House.

SOLE AGENCY OFFERED TO NON-CUTTING BRITISH, COLONIAL, AND FOREIGN CHEMISTS.

REGISTERED
TRADE MARK,
No. 22,133.



Wholesale, 12/ per gross.
Less 12½ per cent. at one month.
„ 5 per cent. at three months.
„ 15 per cent. off cash with order.
Retail, 1½d. each (18s. per gross).

SUPPLIED TO ONE RETAIL CHEMIST ONLY IN EACH TOWN OR COUNTY

(through whom alone Chemists can order), who must engage in writing to supply none but Chemists, and to charge known cutting Chemists a price at which they cannot cut. The MANNA CAKE is done up only in quarter-gross cases, for home trade; foreign, in bulk. With each case (the smallest quantity supplied to Chemists) is enclosed a most effective Window Slip (20 in. by 8 in.).

CONDITIONS OF AGENCY (GREAT BRITAIN AND IRELAND).

1.—Perpetual Sole Agency guaranteed. *No exclusively Wholesale House is, or will be, supplied.* 2.—1,000 Handbills, containing Trade Mark, are sent with each gross ordered, and 2s. per gross deducted from account, which Agent must expend in best local newspapers. 3.—Agent to take at his own risk quantities as here given, viz.:—In Great Britain—one gross for every 4,000 population; In Ireland—one gross for every 6,000 population, of the town or district for which he accepts. 4.—Terms Cash, or two REPUTED Referees—discount as above.

N.B.—In the case of acceptances for counties, the whole quantity contracted for is sent in consignments running over two years. The discount allowed is 25 per cent. off cash against the several consignments, and beyond this 2s. per gross is deducted, which sum the Agent must engage to enter in the best newspaper media. Cas's of Trade Mark sent when required for newspapers. Agents charge to chemists, 13s. per gross net. The 25 per cent. is allowed only off contracts for counties. From November 1, 1882, to June 30, 1883, the orders amounted to 2,420 gross. Instead of taking the allowance for newspapers (2s. per gross) Agents can have double the number of handbills, if they choose—the latter are certainly more effective. Chemists contracting for a county (or counties) supply all chemists within that border, and they alone.

TO COLONIAL AND FOREIGN HOUSES

Monopolies are offered on terms enabling them to force the sale in any way they think best. Terms 6/- per gross, free alongside ship, less 2½ per cent. for cash against shipping documents. No printed matter is included in this, the consignee issuing such matter as he thinks best for his monopoly, the large margin of 12/- per gross being allowed for this and retail profits. These contracts are made on the basis of one gross for every 8,000 population, and the interests of consignor and consignees will be enhanced by the contracts covering as large districts as can conveniently be managed. In these cases the whole quantity contracted for should be taken out within three years, and consignees must guarantee in writing not to supply the home trade through any source. Applicants for these must state the boundaries of monopoly sought, and its population, which will be compared with printed statistics. Should these boundaries infringe on existing monopolies, the fact will be pointed out, and arrangements made accordingly.

For samples, propaganda, &c., write — W. RYDING-BENNETTE, Chief Depot, 268 Walton Road, Liverpool.

EXTRACTS FROM AGENTS' LETTERS.

"A Physician in the West of England says he gave Calomel and Jalap in repeated doses without effect, but a MANNA CAKE acted almost immediately.

"The above is a *bona-fide* statement, but I am not authorised to give name and address.

"The article is selling freely."

W. H. HAYWARD, Chemist, Trowbridge, Wilts.

"This move of yours is in the right direction. The sooner Chemists bestir themselves to foil the 'cutting' system, the better for them and for Proprietors."

JOHN BIRKETT, Chemist, Morecambe.

"It is one of our best preparations."

HENRY BECK, Chemist, Albrighton, Salop.

"It is singularly mild and efficacious. I certainly consider it a splendid substitute for Castor Oil."

A. CHRISTIE, Chemist, Newton-Abbot, Devon.

"Such a system of agencies is a veritable ally to the C. and D. Trade Association, and it is to be hoped that other manufacturers will follow the example."

H. HALSTEAD, Chemist, Rawtenstall.

"As the MANNA CAKE I had on trial (three gross) is just sold out I will thank you to send me on at the earliest moment 22 gross of the contract quantity (220 gross). It is an excellent medicine. A lady customer told me recently it was the best she has used for the purpose."

JOHN BLAIR, Chemist, Cork.

"The MANNA CAKE should, in my opinion, have a place in the next edition of the Pharmacopoeia. It will make its way on its own merits. Rigolot's 'Cloth' and the MANNA CAKE may be considered legitimate weapons of domestic medicine."

Extract from letter from Dr. MARSH, 41 Horton Lane, Bradford.

Dr. McCANN, Orchard-hey, Liverpool, sent the following letter:—"Dec. 22, 1880.—The aperient action of the MANNA CAKE is decidedly good. Mildly energetic, free from griping, and to be depended on when a mild but certain aperient is needed. It is, also, an effectual WORM CAKE. Being pleasant to the taste (it is mainly sugar), its easy administration very strongly recommends its use, especially in fever cases, where all excitement should be avoided."

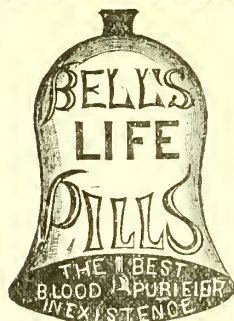
Another gentleman writes:—"The MANNA CAKE is, in point of certainty of operation and mildness, the most extraordinary purgative I ever met with. Coupled with pleasure in the taking of it, is the sufficiently copious relief, without inconvenience at the time or bad effects afterwards. I should think it a boon to invalids, and for children the very thing so long needed."

MANNA CAKE.—JAMES SAVAGE, Bradford, writes July 12:—"Just received second fifty gross of contract. Five hundred gross for county sells well, and answers admirably."

About 340 Town Agents are now appointed.

N.B.—If at any time an Agent can prove that the conditions herein-named have been violated, he is entitled to return any goods on hand, and to demand payment for them.

BELL'S PATENT LIFE PILLS AND OINTMENT



Are acknowledged by thousands to be the best and safest medicine ever offered to the public.

It is impossible to equal them in the worst cases of Nervousness, Liver Complaints, Indigestion, Lumbago, General Debility, Bile, Disordered Stomach, Costiveness, Female Complaints, Wind, Skin Diseases, all Eruptions, Boils, Ulcers, Burns, Cancers, Abscesses, Piles, &c., &c.

Handbills and Posters, with name and address, sent to any Chemist, or for enclosure to any wholesale house, on receipt of Post-card.

In 1/1², 2/9, and 11/ Boxes and Pots.

Sole Manufacturers, W. BELL & CO., Reading Berks.

W. F. SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1¹/₂d. and 2s. 9d. per Box.

[Registered.] TARAX AND PODOPH. [Registered.]

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Special caution needed against injurious imitations. Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

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To be had of the usual Houses at Home and Abroad.

KEARSLEY'S WIDOW WELCH'S FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!

The proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations: by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for Widow Welch's Female Pills has been prepared by them for 96 Years! Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

1,000 Handbills, with Name, and 2 Tin Showcards,

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In all the Wholesale Lists for years past.

Sale Established 29 Years.

These Pills create a lasting demand wherever they are introduced.

One dozen 1s. 1¹/₂d. size, with 1,000 exceptionally good Counter Bills, Stamped in Colour, with Name and Address, forwarded carriage paid, on receipt of remittance for Nine Shillings.

Proprietor, EDWARD MAISH, Chemist, BRISTOL.

THE CELEBRATED CAMBRIAN MEDICINE.

JONES' (TREMADOC) APERIENT AND ANTIBILIOUS PILLS.

The general test of HALF A CENTURY has now established the reputation of these PILLS, composed of rare and expensive Vegetable preparations, combined with a valuable SNOWDONIAN HERB, forming a MILD, LAXATIVE, TONIC REMEDY, superior to all other preparations as a PREVENTIVE AND CURE FOR ALL DISEASES RESULTING FROM A DISORDERED STATE OF THE STOMACH AND LIVER AND IMPURITY OF BLOOD, &c.

Sold by all the Wholesale Houses, and at the Depot, Tremadoc, North Wales. Retailled by all Medicine Vendors in every Town in the United Kingdom and the Continent, in Boxes, at 1s. 1¹/₂d., 2s. 6d., and 4s. 6d. each.

PRITCHARD'S TEETHING & FEVER POWDERS

Are excellent for Children from Three Months to Twelve Years, when cross, feverish, or restless.

Are recommended as an Antibilious Aperient for Adults, removing Nervous and Bilious Headache, &c.

Mr. J. PRITCHARD.

29 Harper Street, Stretford, Manchester,
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Dear Sir,—I wish to inform you that my child has been very ill from worms and severe fits; the doctor who attended him said it was impossible for him to recover; nothing could save him. But I was induced to try your Teething Powders, and am happy to say he is now quite well; the fits have left him, and he is a bonnie boy.

Yours truly, THOMAS INGHAM.

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A Packet will be sent (post free) for Fourteen Stamps.—Sold by all Chemists

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Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,

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And sold at 1s. 1¹/₂d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

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WHOLESALE & EXPORT DRUGGISTS,
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A WONDERFUL MEDICINE!



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Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

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All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).


CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND.

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX

THE OLD **HOFF'S** THE GENUINE

 THE ORIGINAL MALT EXTRACT REMEDY & TONIC

NOTICE OF REMOVAL.

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Examine each Cork to have the Brand on the left hand, each Label to have Trade Mark on the right hand, with initials M.H. and Signature

Leopold Hoff



To be had of every respectable Chemist and at M. Hoff's London House, 3 Charterhouse Buildings, E.C.

First order of an English Physician to M. HOFF, HAMBURG, in the year 1862.

4 Wells Road Park, Torquay, December 29, 1862.
 Please send me as soon as possible 75 bottles of "your" Malt Extract, beverage of health, with bill. Address to my druggist, John T. Fisher, 8 Strand, Torquay (Devonshire).
 EDELSHEIM, M.D.

First imitation of Hoff's Malt Extract made in London 1867.

(From a letter addressed to M. HOFF, HAMBURG.)

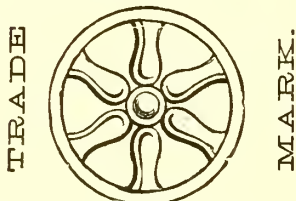
"I have a prejudice against buying your preparation here, as a German druggist told me that Hoff's Malt Extract is here imitated, and that a certain party has brought with him some herbs for a similar preparation.

"49 Graham Road, Dalston, London,

"March 17, 1867."

"GEORGE LUTTNER."

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 GREY AND RED STRING TIED
GERMAN SASH TOOLS.

Chemical Glass & Porcelain Apparatus, Thermometers, &c.

SUPERIOR GERMAN MUSTARD LEAVES,

On the back of which Chemists can have their Name printed.

Aperient Tamarind Lozenges & Tamarind Fruit Conserves.

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DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES

Put up in 4-lb. Decorated Tins with Glass Lids, *TINS FREE*, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of every kind.

Sent out in 2-lb. or 4-lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS.

PURE MALT TABLETS

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GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale, keep in any climate, and please everybody. Manufactured by

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Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

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HENRY ROUS'S Packet and Loose Tea.

Agents appointed where unrepresented throughout the United Kingdom Samples and Prospectus post free. Bankers, the National Provincial Bank of England.—Warehouses, 376 to 378 Edgware Road, London, W.

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Is the only guaranteed Pure Soluble Cocoa, better and cheaper than any other Cocoa, Cocoa Extract, or any Chocolate.

The *British Medical Journal*, March 27, 1869, says:—"Van Houten's Cocoa is admirable. In flavour it is perfect, and it is so pure, well prepared, and rich in alkaloid," &c., &c. See also the *Lancet*, &c.

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HOMŒOPATHIC SUNDRIES OF ALL KINDS.

PRICE LISTS OF MEDICINES, MEDICINE CHESTS, &c., POST FREE TO ANY PART OF THE WORLD.

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HOMŒOPATHIC ABSORBENT WAFERS

(REGISTERED),

For administering Tinctures of all Dilutions without the inconvenience of Dropping or the necessity of Water.

MESSRS. CONYNGHAM & CO. are convinced many Homœopaths would prefer the use of Tinctures to Pilules, were it not for the inconvenience experienced in dropping them, and the necessity of water for the administration of each dose; consequently they have introduced these **ABSORBENT WAFERS** as a successful mode of meeting this difficulty.

These Wafers are so prepared that, when placed over the mouth of the bottle (which is carefully tilted), they absorb the usual dose. The Wafer is then immediately placed upon the tongue to dissolve like an ordinary Pilule; thus at once dispensing with the trouble of dropping and the use of water.

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"The Wafers will be found very popular, as they add considerably to the convenience of administration."—*Chemist and Druggist*.

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HYDROBROMIC SYRUP OF HYPOPHOSPHITES, &c.

London Depot—7 SNOW HILL.

ESTABLISHED 1843.

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HOMŒOPATHIC CHEMISTS,

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And (late **HENRY TURNER & CO.**)

51 Piccadilly, Manchester,

ILLUSTRATED PRICE LIST ON APPLICATION.

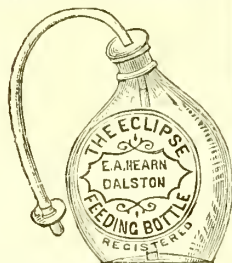
THOMPSON & CAPPER have now for many years, with the greatest benefit to their Agents throughout the world, supplied, *free of cost*, Books for Gratuitous Distribution, compiled by themselves, containing complete directions for using the Homœopathic Medicines, a plentiful distribution of which invariably ensures a large sale. Handbills also, with name, *ad lib.*

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Sells well everywhere, its beneficent qualities being attested to by physicians in all parts of the world. (See Testimonials.)

In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

Feeding Bottles.
The "ECLIPSE."



White Fittings, 30/ per gross.

Best Black Fittings,
38/ per gross.

The above are put up in
One Dozen Wood par-
titioned Boxes.

HEARN, RIDDELL & CO.,

Glass Bottle Manufacturers,

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GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE,
BLUE, AMBER, ACTINIC GREEN, or any other colour required.

SYRINGES, GRADUATED MEASURES, FUNNELS, &c.

SPECIAL ATTENTION GIVEN TO QUALITY.

Quotations, post free, to any part of the world on application.

The above will be found the BEST and CHEAPEST House in the trade.

8 ozs., 10 ozs., 13 ozs. Fluid,
this shape pot.



FRENCH SCREW GLASS POTS & BOTTLES,

WITH METALLIC NICKLED CAPSULES.

The above new method will show advantageously Jams, Jellies, Honey, Dragés, Cachous, Pills, Lozenges, &c.; is specially adapted for Export, and excels all others for neatness and elegance. Made in various new Designs—Pots, "Kalis" tube-shaped Bottles, Bocals, &c. Spécialité for Bottles for all kinds of Confectionery, Essences Manufacturers, and Sundries.

THE LARGEST ASSORTMENT IN ENGLAND.

G. V. DE LUCA, French Flint Glass Manufacturer, 6 and 7 Long Lane, LONDON, E.C.

WHOLESALE AND EXPORT AGENTS—S. MAW, SON & THOMPSON, 7 TO 12 ALDERSGATE STREET, LONDON, E.C.

Illustrated Catalogue for Patent Screw Capsule on application.

WILLIAM TOOGOOD,

35, 36, and 37 Mount Street, Grosvenor Square,

LONDON, W.

GRADUATED MEASURES,

Stamped and Verified as required by the Weights
and Measures Act.

1 dr. 2dr. ½oz. 1oz. 2oz. 3oz. 4oz. 6oz. 8oz. 10oz. 20oz. 40oz.
9/6 11/6 9/ 10/3 11/6 13/ 14/6 18/ 19/ 21/ 29/ 39/ per doz.

CAUTION.—Each Measure manufactured by me bears my name as a guarantee.

GRADUATED MEDICINE GLASSES

IN GREAT VARIETY.—See Price List.

INCORRODIBLE WHITE METAL SCREW- TOP BOTTLES,

Suitable for Vaseline, Pomades, Glycerine, Jelly, &c., &c.

DISPENSING BOTTLES,

Warranted Accurate Measure and Graduation.

SPECIAL ARRANGEMENTS MADE FOR LETTERING ABOVE
WITH NAME, &c.

TOOGOOD'S NEW SHAPE BURNT-IN COLD CREAM POTS,

WITH CLIENT'S OWN NAME BURNT IN.

SPECIAL DESIGNS.

PRICES AND SPECIMENS UPON APPLICATION.

*Illustrated Price List of Glass Bottles, Earthenware,
Druggists' Sundries, &c., forwarded upon application.*

PRIZE MEDALS INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE, 1880

KILNER BROTHERS,

GLASS BOTTLE MANUFACTURERS,

SOLICIT ORDERS FOR GLASS BOTTLES OF ALL KINDS,

FEEDING BOTTLES, GLASS MEASURES, SYPHONS, VAN BOXES & CASES.

Illustrated Book and Price List on application to

No. 3 GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

M. A. CRAVEN & SON,

WHOLESALE AND EXPORT CONFECTIONERS,

MAKERS OF

Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,

IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.

LABOR CONFECTIONERY WORKS,

YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges.

ESTABLISHED 1843.

PRICE LIST ON APPLICATION.

SHOP BOTTLES AND JARS

WITH BURNT-IN LABELS

(Black letters on a ground of pink or white enamel).

Narrow-mouthed and Wide-mouthed Bottles, well Stopped.

Capped and Tube-stopped Oil Bottles.

Group Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass.

Lozenge Jars with Cut Glass Knobs.

Cut Perfume Bottles, Round, Oval, and Square.

Shop Jars of Best Porcelain, thoroughly Grease-proof.

Labels Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain.

PRICE LIST ON APPLICATION.

*A Large Variety of Samples on Show at***H. POTHS & CO.,**

15 SUGARLOAF COURT,

50 LEADENHALL STREET, LONDON, E.C.

Amongst others the following have been supplied with these bottles and jars:—

Bradford & Co., Bridlington Quay; Büchner, M., 124 High Street, White-chapel, London, E.; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln; Oyden, E. H., Newcastle-under-Lyme; Davis, Hayton, High Harrogate; Donovan, Richard, Blackrock, near Dublin; Durrant, G. R., Hertford; Hall, Ralph, 552 Kingsland Road, London, N.; Howell, E. H., & Co., Narberth; Jenkins, J. T., Nottingham; MacMillan, John, Glasgow; Potts, Charles, Weston; Proctor, Wm., & Son, Newcastle-on-Tyne; Roberts, D. P., Croydon, Surrey; Robinson, H., Baildon, near Leeds; Saunders, A., Waltham Cross, London; Sharpe & Son, High Street, Notting Hill, London, W.; Southern, J., Manchester, opposite the Assize Court; Taylor, P. N., 14 Winghall Street, London, E.C.; Twinberrow, W., & Son, 80 Wigmore Street, London, W.; Waterall, Geo., & Sons, Nottingham.

DENOUL'S MEDICINAL CAPSULES

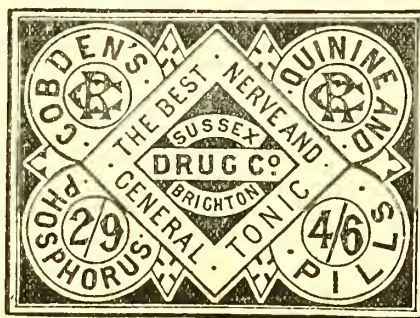
ARE THE BEST AND CHEAPEST.

Attention is called to the following Articles:—

	Trade Price.	Retail.
Peruvian Mixture Capsules	12/ & 9/	8/ & 2/
Matico Oil and Copaiba Capsules	13/	2/
Santal Oil Capsules (36 in each box)	25/	4/6 to 6/6
Cubeb Oil and Copaiba Capsules	10/	2/ to 2/6
Copaiba, Cubeb Oil, and Santal Oil Capsules	18/	4/ to 4/6
Copaiba Capsules, No. 9	7/	2/6
" " No. 1	6/8	2/3
" " No. 2	6/	2/
Copaiba, Alnm and Cubeb	7/	2/
Compound Ferruginous	7/	2/
Male Fern Oil	12/	8/
Cod Liver Oil	6/	1/6
Castor Oil	5/8	1/3
Denoul's Injection (to ensure a radical cure in two days)	18/	2/9

ALL DRUGS WARRANTED TO BE GENUINE.

Jules Denoul, Carlton House, 4 New Cross Rd., London, S.E.



SPRATTS PATENT DOG MEDICINES AND SOAP. TASTELESS APERIENT BISCUIT FOR DOGS.

The *Field*, 28th January, 1882, says:—"The satisfactory results we obtained leave no doubt in our mind as to the value of the invention."

"LOCURIUM"

(PATENT)

CURES ALL KINDS OF CUTS, BRUISES, AND WOUNDS IN MAN AND ANIMALS.

"SPRATTS PATENT," Bermondsey, S.E., or order through your Wholesale House.

Wholesale Agents for the Soap and Dog Medicines:—Barclay & Sons; Sanger & Sons; Sutton & Co.; F. Newbery & Sons; Lynch & Co.; R. Hovenden & Sons, London; Raimes & Co., Edinburgh, York, and Liverpool; Ravensdale Mill Co., Dublin; Woolley, Sons & Co. Manchester; Taylor, Gibson & Co., Newcastle-on-Tyne; Goodall, Backhouse & Co., Leeds; and of all Wholesale Houses

SANITARY ROSE POWDER.

"The Perfection of
Nursery Powders."

An Antiseptic Dusting Powder for Toilet and Children's Use.

A RELIABLE SUBSTITUTE FOR VIOLET POWDER, FULLERS' EARTH, &c.

"An improvement on the old-fashioned Violet Powders, which are manufactured under very various formulae. It is an advantage of this Powder, as compared with ordinary Fullers' Earth, that it is not liable to cake, and thus to excite irritation."—BRITISH MEDICAL JOURNAL, June 16, 1882.

"Its employment, in nurseries particularly, may be strongly recommended."—MEDICAL PRESS AND CIRCULAR, June 27, 1883.

"As a high-class toilet powder this preparation is likely to enjoy a good deal of favour."—THE CHEMIST AND DRUGGIST, July 14, 1883.

In Boxes 1/, 1/9, and 3/, and in Large Bottles at 5/.

Wholesale London Agents—Messrs. W. EDWARDS & SON, 157 Queen Victoria Street.

Proprietors—J. WOOLLEY, SONS & CO., Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HANDBILLS ON APPLICATION.

CHLORIDE OF LIME.

IN WATERPROOF, AIR-TIGHT, & ODOURLESS PACKAGES. Protected by Royal Letters Patent.

Is neat and clean, and convenient for use. Being air-tight and odourless, retains its strength unimpaired.

IT IS ADMIRABLY ADAPTED FOR EXPORT, AND WILL

KEEP FOR YEARS IN ANY CLIMATE.

Per Box.

24-lb. BOXES, containing 24 1-lb. Packages6/6

Ditto ditto 48 ½-lb. ditto7/0

Ditto ditto 96 ¼-lb. ditto8/0

Ditto ditto 1-lb., ½-lb., & ¼-lb., assorted7/3

Ditto ditto 1 Gross Penny Packages8/0

Per Case.

50-lb. CASES, containing 50 1-lb. Packages13/0

Ditto ditto 10 5-lb. ditto13/0

Ditto ditto 100 ½-lb. ditto14/0

Ditto ditto 200 ¼-lb. ditto16/0

Ditto ditto 1-lb., ½-lb., & ¼-lb., assorted14/6

Also in 1 cwt. and ½-cwt. Cases, to meet the requirements of large buyers and the Export Trade.

Packed also in Jars, Bottles, Casks, and Cases to order.

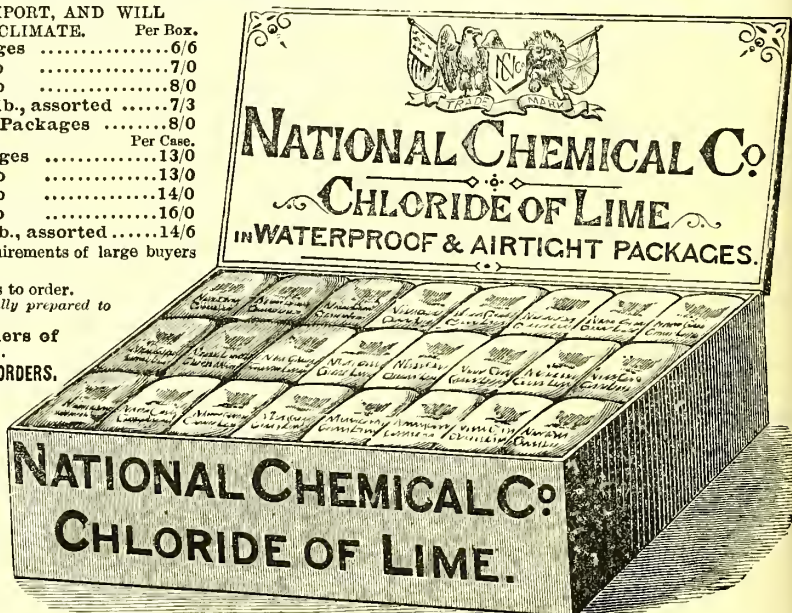
The Patented Composition for Export Orders is specially prepared to bear any Climate.

A Liberal Discount allowed on all Orders of 5 Cases or 10 Boxes and upwards.

SPECIAL QUOTATIONS FOR CONTRACT OR LARGE ORDERS.

WHOLESALE AGENTS.

London: S. Maw, Son & Thompson; Barclay & Sons; J. Newbery & Sons; W. Edwards & Son; J. Sanger & Son; Lynch & Co.; Harvey, Shepherd & Co.; Evans, Lescher & Webb; Burgoyne, Burdidges & Co.; Dury, Yates & Routledge; Hovenden & Sons; Wright, Layman & Umney; Hearon, Squire & Francis; Hodgkinson, Stead & Treacher. Liverpool: Evans, Sons & Co. Manchester: James Woolley, Sons & Co. Birmingham: Southall Bros. & Barclay, York: Raimes & Co. Edinburgh: Raimes, Blanchard & Co.



SAMPLE BOX OR CASE CAN BE HAD FROM ANY OF OUR WHOLESALE AGENTS OR ANY LONDON. OR COUNTRY WHOLESALE DRUGGISTS. ALL GOODS DELIVERED FREE IN LONDON.

NATIONAL CHEMICAL CO., 29 Suffolk Grove, 6t. Suffolk St., Southwark, S.E.

HORSE, CATTLE, AND SHEEP MEDICINES.



By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 10th February, 1866.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE

'ORIGINAL' STOCK BREEDERS' MEDICINE CHESTS,

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for 50 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
- "RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.
- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
- "BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.
- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6 6s. Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, 1871; President's Medal, Spalding, 1872; Silver Medal, Manchester and Salford Show, 1874; Silver Medal, Preston, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford, 1875; Silver Medal, Crewe, 1875; Special Prize, National Agricultural Society of Victoria, Australia, 1875; Medal, Chester, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Newcastle-on-Tyne, 1877; Silver Medal, Knutsford, 1878; Medal, North Berwick, 1878; Medal, Dairy Show, London, 1878; Silver Medal, Derby, 1879; Silver Medal, Wellingborough, 1879; Medal, Benthams, 1880; Medal, Melbourne Exhibition, 1880; Silver Medal, Stourbridge, 1881; Silver Medal, Doncaster, 1882; Gold Medal, Christchurch, New Zealand, 1882; and Silver Medal, Canterbury, 1882.

CAUTION.—Beware of Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burdidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, Hovenden & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

HORSES.—LIEUT. JAMES' BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).

THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICES:—

1 oz. pots from	14/- per doz. to	12/6 per doz.	1 lb. pots from	£4 4 0 per doz. to	£4 0 0
2 "	£1 5 8 "	£1 3 0 "	1 "	7 16 0 "	7 10 0
4 "	2 8 0 "	2 4 0 "			

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, BUTLER & CRISPE, 4 Cheapside; NEWBURY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES & CO., Dublin; GOULDING, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to

R. J. JAMES, South Retford, Notts.

JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

FOSTER'S PEARL-COATED

ROUP PILL

Retail, 2d., 6d., 1s., and 2s. per box.

These Pills have found great favour wherever introduced, being a successful remedy for this troublesome complaint, the price, 2d., placing them within reach of the poorest keeper of Fowls, supplying a want long in demand, the high prices usually charged precluding all but the well-to-do fancier.

An Agent wanted in every Town. Sample dozen of the 2d. size, post-free, 1s. 6d.

Agents' addresses periodically advertised in the Poultry Papers, thus bringing them directly before the notice of consumers.

Wholesale Agents: London: W. Edwards & Son, 157 Queen Victoria St., E.C.; Wyleys & Co., 223 Upper Thames St., and Coventry; Southall Brothers & Barclay, Birmingham; Whitehead, Hulbrook & Co. (successors of W. Mather), Manchester.

PROPRIETOR:

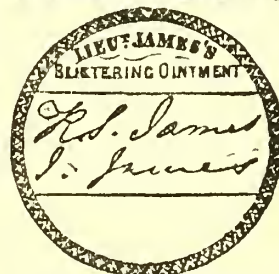
F. F. FOSTER, Navigation Street, BIRMINGHAM.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES' BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Leecher & Evans, Bartholomew Close; Burgoyne, Burdidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; W. Mather, Farringdon Road, London, and Manchester; R. Hovenden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shaft Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia Street, Glasgow; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacre, Pharmacie Anglaise, Bruxelles. And by all Chemists, in Paris, 1/6, 2/9, and 5/.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

W. H. JAMES, Sole Manufacturer, STAMFORD, FARRINGDON, BERKS.
Advertised in "Bell's Life" 49 years. Beware of Spurious Imitations.

See page 117.

HEPATICUS,

FOR JAUNDICE AND ALL LIVER COMPLAINTS.

Biliousness, Indigestion, Weakness, Sick Headache, Loss of Appetite, Nervous and Dyspeptic Affections, General Debility, Spasms, &c.

It quickly cures the above complaints of however long standing. PURIFIES AND CLEANSSES THE BLOOD, and gives to the system a healthy tone. NO CHANGE OF DIET IS REQUIRED. Those with weak constitutions may take it with entire confidence, it being adapted to all ages of either sex.

Sold in Bottles 2s. 9d. each.

In all Countries this Medicine is invaluable, but more so in the Tropics, India, and all Hot Climates, and we particularly call the attention of Shippers and our friends in the Colonies and Abroad to it.

For Terms apply to the Proprietors—TOMLINSON & HAYWARD, Lincoln, England.

Manufacturers of the "Glycerine Dip" for Sheep, "Fly Powder," "Butter Powder," "Castor Oil and ordinary Sheep Ointments," the Original Luddington Oils for Horses, Sheep, and Cattle, &c.

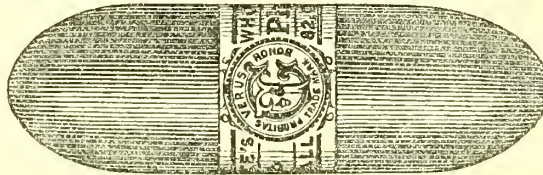
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DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS.

GABRIEL & TROKE,

Wholesale and Export Druggists and Manufacturing Chemists,
82 CITY ROAD, LONDON.

GABRIEL & TROKE'S REGISTERED CAPSULED HORSE BALLS,



Manufactured solely by GABRIEL & TROKE,
WHOLESALE DRUGGISTS, 82 CITY ROAD,
LONDON.

MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.

SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS

The superior advantages of these Balls are obvious. The mass is confined in a hermetically sealed gelatinous Capsule, perfectly harmless, and immediately dissolved in the stomach. The Capsule will not only prevent the Ball from getting dry and hard, but will preserve its purity and power for any reasonable time, and ensure the effectiveness of the medicine—especially when such drugs as Camphor, Ammonia, or Essential

Oils are prescribed. These Capsuled Balls are most convenient and safe and well adapted for export, keeping good in any climate. They are put up in Boxes of 1 dozen each. Capsuled Balls of the most approved formulas on hand, and private recipes faithfully and accurately dispensed. Shipping orders promptly and carefully executed, and at lowest market prices. Price Lists of a very extensive character in the most handy referable style on application.



"FOR PIGS IN HEALTH, FOR PIGS IN DISEASE."

CALVERT'S PIG POWDERS

Are a certain remedy for all ailments to which Swine are subject (especially Swine Fever).

They allow a fair margin of profit to the retailer. Wholesale and Export of Patent Medicine Houses, or Proprietor—

J. H. CALVERT, 57 Geneva Road, BRIXTON, LONDON, S.W.

Beware of Spurious Imitations. Each Powder protected by the Registered Trade Mark.

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MANUFACTURING CHEMIST, YEOVIL,

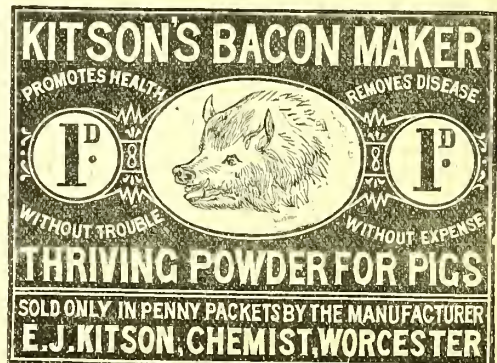
Beg to call the attention of the trade to the following specialities, which will be found worthy of a place in the stocks of all Chemists, and the favour of an order, either direct or through the leading London Houses, will much oblige.

Fly Tick and Lear Powder, for dressing Sheep and	
Lambs	in tins, 1/2, 3/8
Foot Rot Paste	pots, 1/2, 2/6
Condition Powders for Horses	tins, 2/6, 4/6
Canino or Dog Soap .. .. .	.. .. . 6d.
Worm Powders for Dogs 6d.
Balsam Honey for Coughs	7 1/2d., 1 1/2, 2/9
Vermin Killer	3d., 6d., 1/

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Price 8/ per gross, packed in 1-gross and 1/2-gross boxes.



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By Appointment to H.R.H.

BIGG'S

the late Prince Consort.

SHEEP AND LAMB DIPPING COMPOSITION,

For Destruction of Ticks, Lice, &c., and Prevention of Fly.

HAS NOW BEEN USED WITH GREATEST SUCCESS FOR NEARLY HALF A CENTURY.

PAMPHLETS ON APPLICATION.

LEICESTER HOUSE, GREAT DOVER ST., BOROUGH, LONDON.

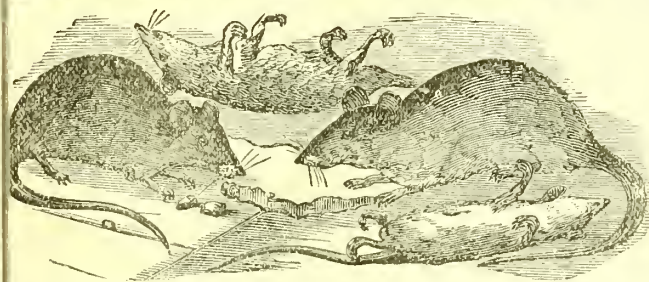
In any Town where no Agent exists Chemists are requested to apply.

WHOLESALE AGENTS FOR CANADA AND UNITED STATES—

Hugden Evans & Co., Montreal, Canada, and Rouse's Point, New York.

BATTLE'S VERMIN KILLER.

{ Mice eat it readily, and
Die on the spot.



Has an immense Sale, and wherever introduced never fails to give satisfaction. Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs. Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—"A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet." From Mr. EDWARD STURDY, Flemington Mills.—"I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets." Leeds, November 11th, 1882.—"I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS."—THOMAS S. CROSLAND.—Mr. Stead.

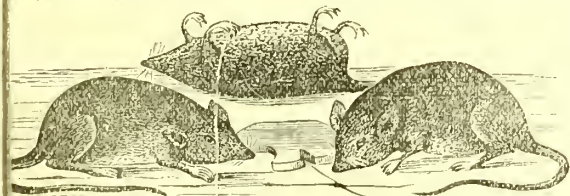
Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

E. B. TAYLOR'S INFALLIBLE VERMIN KILLER.



The Rev. Mr. Lewis (late Pastor of St. Stephen's Church, Rochdale) writes that a small packet of the Destroyer cleared his house of Mice in a very short time.

Prepared by E. B. TAYLOR, Operative Chemist, 7 Whitworth Road, Rochdale.

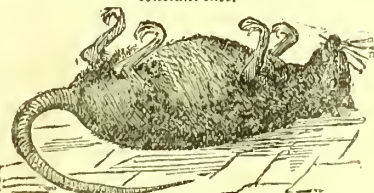
Sold in Packets, 2d., 3d., 6d. and 1/- each, by all Chemists. AGENTS WANTED EVERYWHERE.

100 Rats destroyed for a Shilling by BARBER'S PHOSPHOR PASTE.

WRAPPED NEATLY FOR THE COUNTER.

And some attractive Posters supplied; if conspicuously placed will command constant sale.

THE DEAD VERMIN DRY UP WITHOUT SMELL.



Guaranteed the best destroying Paste in the world.

8d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER.

SOLD THROUGHOUT THE WORLD.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s. Do not be deceived with worthless imitations. Observe the Name!!!

CORNS! CORNS!! BUNIONS!!!

Are always Cured by the use of

BARBER'S CORN AND BUNION PLASTERS.

They never fail in giving relief in 10 minutes. Testimonials accompany each Box. Will well repay anyone to introduce.

8s. 6d. and 21s. per dozen, remittance with order, free post.

WORKS, SALISBURY. ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

RAT POISON.

"Among many preparations for killing Rats I have never found anything answer so well as that I obtained from

Messrs. SANFORD & SON, of Sandy, Bedfordshire.

From One Dressing I found 120 dead rats."—G. WINTER, Park Farm, Walden, Essex.

The Poison can be obtained in Boxes, at 1s.; 1s. 2d. with Postage, and upwards. A Liberal Discount to Agents.

Wholesale of Messrs. BARCLAY & SON, Farringdon Street.

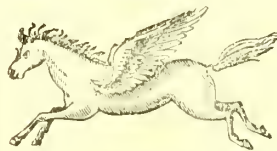
HONEST COMPETITION.

Chemists wishing to compete with Stores and cutting prices should send for my detailed lists (post free), containing 199 recipes of Medicinal Specialities, all in actual commerce.

EFFERVESCENT SALINE (like Eno's). Perfectly soluble. Brisk effervescence. Costs 10d. lb.

RED ROSE LOTION. Elegant preparation for sunburn, freckles, tan, and skin eruptions.

CORN ERADICATOR (iodine and salicylic acid). Instant relief and certain cure guaranteed. Recipes 1s. 1d. each, 3 for 2s. 6d., with full instructions. T. BROOKS, Chemist, Louth.



VESICO

SUDORIFIC.

VESICO SUDORIFIC (Registered) will not blemish, but will, quicker than any other remedy, relieve and cure Splint, Spavin, Ringbone, Sidebone, Capped Hock, Curb, Windgall, and strengthen the legs of Horses. Also for Tumours in Cattle. Price, 2/6 size 24/ per doz.; 5/ size 48/ per doz., with usual discount. PROPRIETOR—

C. W. GREGORY, V.S., BRISTOL.

Wholesale Agents:—London—BARCLAY & SONS, EDWARDS & SON, SANGER & SONS; Liverpool—THOMSON; Edinburgh—RAIMES & Co.; Dublin—BOYD & GOODWIN; Cork—W. & H. M. GOULDING.

THE MORGAN CRUCIBLE COMPANY

(THE PATENT PLUMBAGO CRUCIBLE COMPANY),

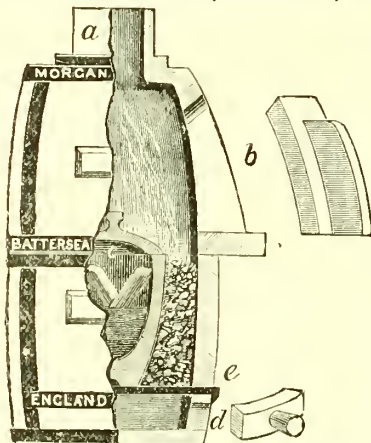
Sole Manufacturers of MORGAN'S and SALAMANDER CRUCIBLES.

PORTABLE FURNACES.

IRON BOUND. EXTERIOR DIMENSIONS.

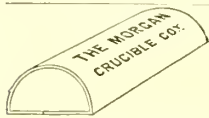
For MELTING GOLD, SILVER, COPPER, &c.

For ASSAYING, DENTAL WORK, &c.



a. Door for fuel.
b. Door for muffle.
c. Muffle arch.
d. Door for regulating draft.
e. Fire-clay grate.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	For Morgan's Crucible.	Price, £ s. d.
A	9 1/2	235	17 1/2	445	No. 2	1 0 0
B	9 1/2	248	20	508	" 4	1 5 0
C	11	280	22	559	" 6	1 10 0
D	13 1/2	340	26	660	" 8	2 5 0
E	14 1/2	369	28	712	" 12	3 0 0
F	18	457	32	813	" 16	4 0 0



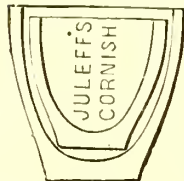
MUFFLES.

With or without apertures.



No.	Long, in.	Wide, in.	High, in.	Price, per doz.	No.	Long, in.	Wide, in.	High, in.	Price, per doz.
A	7	3 1/2	2 1/2	12	G	11	4	3 1/2	21
B	7 1/2	4 1/2	2 1/2	15	H	10 1/2	5 1/2	3 1/2	25
C	8	4 1/2	3	18	J	12	6	4	33
D	8 1/2	5	3 1/2	21	K	14	8	5	48
E	9	5 1/2	3 1/2	24	L	15	9	6	54
F	10	6	4	27					

Sizes A to F, also K, are suited for the Furnaces of the same letters.
G to L have one slit at back only, none at sides.
In addition to those priced above, Muffles are made of all shapes and sizes, suitable for Assayers, Enamellers, Dentists, &c.



ASSAY CRUCIBLES.

FOR COPPER.

CORNISH FORM AND QUALITY (JULEFF).

	High, in.	Hauteur, milli.	Diam. in.	Diam. milli.	Price, per doz.
Nest of Two	3 1/2	083	3	077	2/ per doz.
Single..	2	064	2 1/2	051	1/ "

All sizes and shapes to order.

FOR TIN.

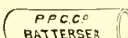
	High, in.	Hauteur, milli.	Diam. in.	Diam. milli.	Price, per doz.
	3 1/2	083	3	077	6/ per doz.

Covers, 1s. 6d. per doz.



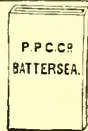
FLAT, WITH EARS.

POROUS BATTERY CELLS OF SUPERIOR QUALITY.

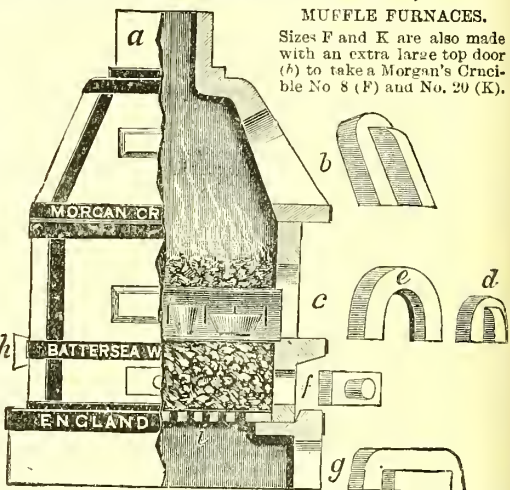


ROUND.

LIST OF PRICES ON APPLICATION.



FLAT.



MUFFLE FURNACES.

Sizes F and K are also made with an extra large top door (h) to take a Morgan's Crucible No 8 (F) and No. 20 (K).

a. Door for fuel.
b. Door for muffle.
c. Muffle arch.
d. Door for regulating draft.
e. Fire-clay grate.
f. Door for stirring fire.
g. Door for muffle.
h. Door for fuel.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	Price, £ s. d.
A	12 1/2	318	24 1/2	622	2 0 0
B	12 1/2	337	25 1/2	642	2 5 0
C	14 1/2	369	27	686	2 10 0
D	15 1/2	394	28 1/2	724	3 0 0
E	16 1/2	414	29 1/2	749	3 10 0
F	17 1/2	445	30	762	4 0 0
K	23	585	48	1224	8 0 0

ROASTING DISHES.

Diam. in.	Diam. milli.	Per doz.	Diam. in.	Diam. milli.	Per doz.
2 1/2	064	1/3	5	102	1/9
3	077	1/6		127	2/

Larger sizes to order.



SCORIFIERS. (PER GROSS.)

Diam. in.	Diam. milli.	Price.	Diam. in.	Diam. milli.	Price.
1	026	3/	2 1/2	064	5/
1 1/2	032	3/6	3	070	6/
1 3/4	038	4/	3 1/2	077	7/6
2	051	4/6	4	089	9/
2 1/4	057	4/6	4 1/2	102	10/6



FOR LEAD.

3 in. diam., 077 diam. milli., with Covers, 2/3 per dozen.
Other sizes to order.

FOR GOLD.

THESE ARE PERFECTLY SMOOTH, AND OF THE CORRECT POROSITY.

No.	Diam. in.	Diam. milli.	Height, in.	Hauteur, milli.	Per doz.
A	1 1/2	027	1 1/2	027	2/
B	1 1/2	032	1 1/2	032	2/
C	1 1/2	038	1 1/2	038	2/
D	1 1/2	045	2	051	2/

Covers for either size, 6d. per doz.



Sole Manufacturers of JULEFF'S CORNISH Crucibles for Copper, Tin, &c.

NOTICE.—Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by
THE MORGAN CRUCIBLE CO. (Sole Manufacturers of Morgan's), Battersea Works, LONDON, S.W.
and Salamander Crucibles

COOPER'S SHEEP DIPPING POWDER

Is soluble in Cold Water, and should be used in preference to any other Dip,

FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.

This Dip has been in use for Forty Years, and has never been equalled by any other; it is of uniform strength, does not stain the wool, is suitable for all climates, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

It supersedes all Carbolic and other Liquid Dips, being so much more reliable and lasting in its effects.

Counter Bills and Directions in English, Spanish, Dutch, &c., may be had free on application.

COOPER'S FLY POWDER

For Preventing the Fly Striking Sheep & Lambs, Destroying the Maggot, &c.

In 1-lb. Packets, to Retail at 6d.; and 2½-lb. perforated Canisters, to Retail at 1s. 4d.

This Powder may also be had labelled with the *Retailer's own Name and Address*, provided not less than one gross packets or 6 dozen canisters be taken at once.

SPECIALLY LOW QUOTATIONS FOR QUANTITIES IN BULK.
Samples on application.

Terms and further particulars may be had of the Proprietor,
WILLIAM COOPER, M.R.C.V.S., Chemical Works, Berkhamsted, Herts.

W. KEMP & SON, HORNCastle, are now offering a consignment of fine, clear, unset **SWISS** and **CALIFORNIAN HONEY**, in free 28-lb. Tins, with Handles and Necks. The quality is very choice, and is seldom met with. Applications for Samples and Prices solicited. Genuine French Beeswax in bricks, Hungarian Beeswax, White Wax at low prices. Nett Price List of Linseeds, Linseed Meal, Drugs, Chemicals, Oils, &c., free on application. **W. KEMP & SON, Wholesale Druggists. Seed Crushers and Merchants, Horncastle.**

HAMBRO SPECKLED.



**TRADE MARK
REGISTERED.**

All Orders by Post receive immediate attention.

LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSEILLES, & 55 PENTONVILLE ROAD, LONDON, N.

HEATHFIELD'S Liquor Opii Sedativus,

By "BATTLETT'S PROCESS,"

Guaranteed precisely as made in the laboratory, and under the superintendence of the late Richard Battley.

Can be procured from the principal Patent Medicine Dealers and Wholesale Druggists, or at

12 WILSON STREET, FINSBURY.

National Health Society's EXHIBITION, LONDON, JUNE 1883.

GREAT SUCCESS!

The SILVER MEDAL, the Only Award for Water Filters,

Was granted to

**MAIGNEN'S PATENT
"FILTRE RAPIDE"**

On account of its great superiority over all other Filters in point of

**EFFICACY,
SIMPLICITY,
AND ECONOMY.**

"The National Health Society's Silver Medal was awarded to Maignen's 'Filtre Rapide' on the score of simplicity and comparative economy."—*The Queen*, July 7, 1883.

The Sanitary Institute of Great Britain

Have awarded this excellent Water Filter

ONE SPECIAL MEDAL OF MERIT, CROYDON,

TWO CERTIFICATES OF MERIT, EXETER,

ONE CERTIFICATE OF MERIT, NEWCASTLE.

International Medical & Sanitary Exhibition,

SOUTH KENSINGTON,

CERTIFICATE OF MERIT (HIGHEST AWARD).

Brighton Health Congress,

SILVER MEDAL (HIGHEST AWARD).

"A better filter could not be desired."—*The Lancet*.

"A really excellent water filter."—*The Globe*.

"To cleanse the whole thing (Maignen's Patent 'Filtre Rapide') all that is required is to wash off the old filtering medium and deposit a fresh supply on the asbestos cloth, an operation very easily accomplished in a few minutes, and one which can be done without the trouble and expense of returning the filter to the maker."—*The Engineer*, June 22, 1883.

Large numbers of Testimonials to be had from the Patentee.

P. A. MAIGNEN,
22 & 23 GREAT TOWER STREET, E.C., LONDON.

N.B.—Cholera, Typhoid Fever, Diphtheria, and other epidemic diseases are spread by specific germs which enter the body with the air we breathe and the water we drink. In air these germs are dry, and, like the dry grain of wheat, live, but in water they are already wetted and ready to develop into perfect organisms when taken into the human system. Maignen's Patent "Filtre Rapide" is guaranteed to remove from water even the smallest of these germs.

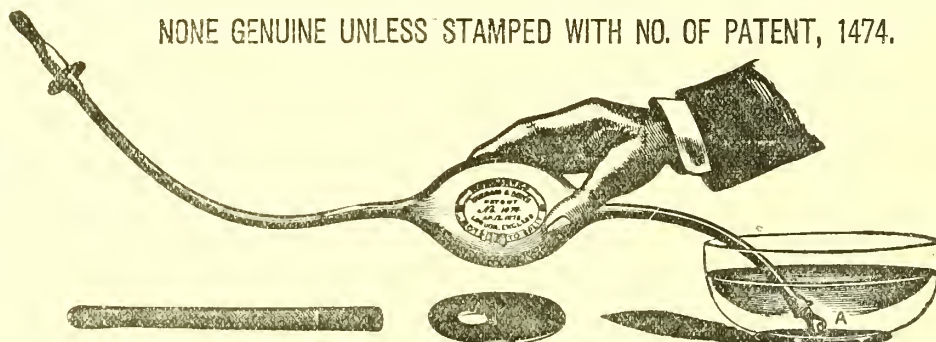
THE ONLY PERFECT ENEMA OBTAINABLE.

INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

CAUTION.—The only
Enema made without
Ribs.



All Imitations may be
detected by the Ribs on the
Surface, and are always
liable to split.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT, 1474.

WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz. : By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz. : SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A ; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.

No. 1b. Unpolished, in Red, Green, Blue, Black, or White.

No. 2. Unpolished, in Drab only.

ORIGINALITY AND RELIABILITY

RECEIVED HIGHEST AWARDS—MEDALS AND DIPLOMAS—OVER
ALL EUROPEAN AND AMERICAN COMPETITORS.PHILADELPHIA, 1876,
MELBOURNE, 1880,
NEW YORK, 1881.PARIS, 1878,
NEW YORK, 1880,
ATLANTA, 1881,NEW YORK, 1879,
MATANZAS, 1881,
CHARLESTON, 1882.**SEABURY & JOHNSON,**

MANUFACTURERS OF

India Rubber, Medicinal, Adhesive,
Bunion, Corn, Court,**PLASTERS**Kid, Leather, Mustard, Spread,
Pharmaceutical and SurgicalOf every description, in the most approved form. Also, Absorbent, Borated, Salicylated and
Carbolated Cotton, Antiseptic Gauze, Bandages, Cotton Wool, Gutta Percha Tissue,
Lint, Oil Silk and Muslin, and every variety of Surgical and Antiseptic Dressings.**SPECIALTY:**—Pharmacopœia & Surgical Plasters, in India Rubber Combination, Porous & Spread.

Office & Salesroom, 1 & 2 Australian Ave., London, E. C., England.

TERMS FOR 1882.MONTHLY SETTLEMENTS. ONE PER CENT. FOR CASH WILL BE ALLOWED, PROVIDED BILLS ARE REMITTED FOR WITHIN TEN
DAYS FROM DATE OF SHIPMENT, NOT OTHERWISE.**DISCOUNTS:**—Goods to be selected from our List at pleasure.Orders amounting to £25, nett, will be subject to - - - 20 per cent. discount.
" " " 10, " " " " " 15 " " "
" " " 5, " " " " " 10 " " "

Orders under £5, nett, - - - long prices will be charged without discount.

CARRIAGE ALLOWED OR PREPAID ON £25, NETT, ORDERS ONLY.

EVERY ARTICLE WARRANTED.**Pharmacopœia & Medicinal India
Rubber Porous Plasters.**

Packed two dozen in a box. Size, 5x7½ inches.

	per gross,	£ s. d.
Aconite.....	"	3 0 0
Arnica.....	"	2 8 0
Belladonna.....	"	2 14 0
Capsicum.....	"	2 0 0
Iron.....	"	2 8 0
Opium.....	"	3 12 0
Poor Man's.....	"	2 8 0
Strengthening.....	"	1 10 0
Witch Hazel.....	"	3 0 0

Special Formula made to order. A full line of Plain
Spread and Porous at same rates.**YARD ROLLS****Pharmacopœia & Medicinal Plas-
ters, in Rubber Combination.**

Porous or Plain Spread, size, 7 in. wide by 1 yard long.

	per dozen,	£ s. d.
Aconite and Belladonna.....	"	1 10 0
Belladonna.....	"	1 7 6
Blister, Cantharidal.....	"	1 7 6
Capsicum.....	"	1 7 6
Mercurial.....	"	1 10 0
Opium.....	"	1 10 0
Pitch Burgundy.....	"	1 7 6
Roborans.....	"	1 7 6
Thapsia.....	"	1 7 6
Warming.....	"	1 7 6

A full line, Plain and Porous.

BREAST PLASTERS**Belladonna, Lead & Phytolacca Decandra,
SEPARATELY OR IN COMBINATION.**One dozen in a box. 6 & 7 inches in diameter, Porous and
Plain Spread.**Mead's Adhesive Plaster,
PLIABLE AND ANTISEPTIC.**5 yd. rolls, 14 inches wide.....per 5 yd. roll, 5s. 0d.
1 yd. rolls, 7 inches wide.....per dozen, 14 0

May also be had in Spools, ½, 1, 2 and 3 inches wide.

Salicylated I. R. Adhesive Plaster,

Porous or Plain Spread, on Strong Cotton Cloth.

Yard Rolls, 7 inches wide.....per dozen, 17s. 0d.

5 yard Rolls, 7 inches wide.....per roll, 6 6

May also be had in Spools, ½, 1, 2 and 3 inches wide,

AND

On Twilled Linen and Moleskin.**Corn and Bunion Plasters.**

Mead's MEDICATED.....per dozen boxes, 8s. 0d.

Each box contains one dozen Plasters.

Also a full line of Arnicated Corn and Bunion Plasters,
round, oval and Square, all styles, thick and thin; in Glass
Top Boxes, and containing each 1 gro. Corn or ½ gro. Bunion.**COURT PLASTER.**

40 different styles, elegant and Balsamic.

**Surgeons' Salicylated Isinglass
Plaster.**

On fine, pure silk, "Flesh, White or Black."

7 inches wide, 1 yard long.....per dozen, £1 2s. 0d.

Also, on Tracing Cloth and Muslin.

Mustard Plasters,

Spread on Cotton Cloth.

Tins, containing 10 leaves.....per dozen, 10s. 0d.

Envelopes, containing 6 leaves....." 6 0

Envelopes, containing 3 leaves....." 3 0

Yard Rolls, 6 inches wide....." 10 0

Half-yard Rolls, 6 inches wide....." 6 0

Antiseptics and Absorbents.A most extensive line, comprising Absorbent, Borated,
Carbolated and Salicylated Cottons; Hospital and Flax Lint;
Oil Silk and Muslin, Gutta Percha Tissue; Carbolated, Anti-
septic, Eucalyptus and Iodoform Gauze; Roller, Flannel
and Rubber Bandages, Catgut Ligature, and**Surgical Dressings of every description.****SPECIAL NOTICE.**Our New Catalogue of Specialties is ready for delivery, and contains a complete assort-
ment of our preparations. A copy will be sent to any Chemist on application to
Yours very truly,**SEABURY & JOHNSON, 1 and 2 Australian Avenue, London, E. C.**

QUALITY IS OF FIRST IMPORTANCE

WRIGHT'S

origin to too slow a current of blood, of which the most typical example is that seen in Eczema connected with varicose veins of the leg—but to the same category also many examples of Pruritis Scroti, Labiorum and Ani may be referred—is best relieved by

LIQUOR

From the *Lancet*, Dec. 22nd, 1866:—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class; and one case psoriasis, which had resisted all other kinds of treatment, speedily got well under the application of the Liquor Carbonis Detergens. We esteem it a very valuable addition to our list of skin remedies."

From the *Medical Times and Gazette*, January 19th, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

CARBONIS

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies.

From the *British Medical Journal*, Sept. 22nd, 1871:—"We have tested it, and can affirm its value as a detergent agent. We consider the Liquor is an article of great utility."

Proprietors:

W. V. WRIGHT & CO.,
Southwark Street, London.

DETERGENS.

UMNEY'S

Made from Bark of Cinchona Succirubra, as grown in Government Plantations of British India.

At the Medical International Congress, London, the Indian Bark was declared to be the bark of the future.

Extensively used in Private and Hospital Practice, on account of its Elegance, Medicinal Value, Moderate Cost. See Opinions of the Medical and Pharmaceutical Press, and testimony as to its superiority over all other Fluid Preparations of Cinchona.

FLUID EXTRACT

OF

CINCHONA.

Price 10s. 6d. per lb.

To be obtained of all Druggists (Wholesale and Retail) in the United Kingdom.

IN ORDERING SPECIFY "UMNEY'S."

Lancet.—"An excellent preparation—contains all the alkaloids of the Bark."

Medical Times and Gazette.—"An excellent, elegant, reliable, and very convenient preparation."

Medical Press and Circular.—"Used in Hospital and private practice with the most satisfactory results."

Pharmaceutical Journal.—"Excellent preparation furnishing the constituents of the Bark in a concentrated form."

Chemist and Druggist.—"Pharmaceutically worthy of the valuable medicine which it represents."

WRIGHT, LAYMAN & UMNEY,
SOUTHWARK STREET, LONDON, S.E.